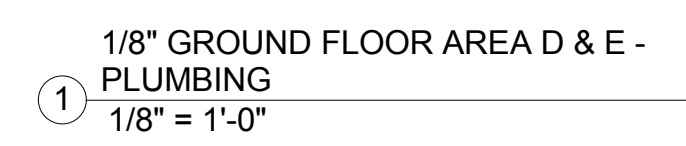





#10- PLUMBING

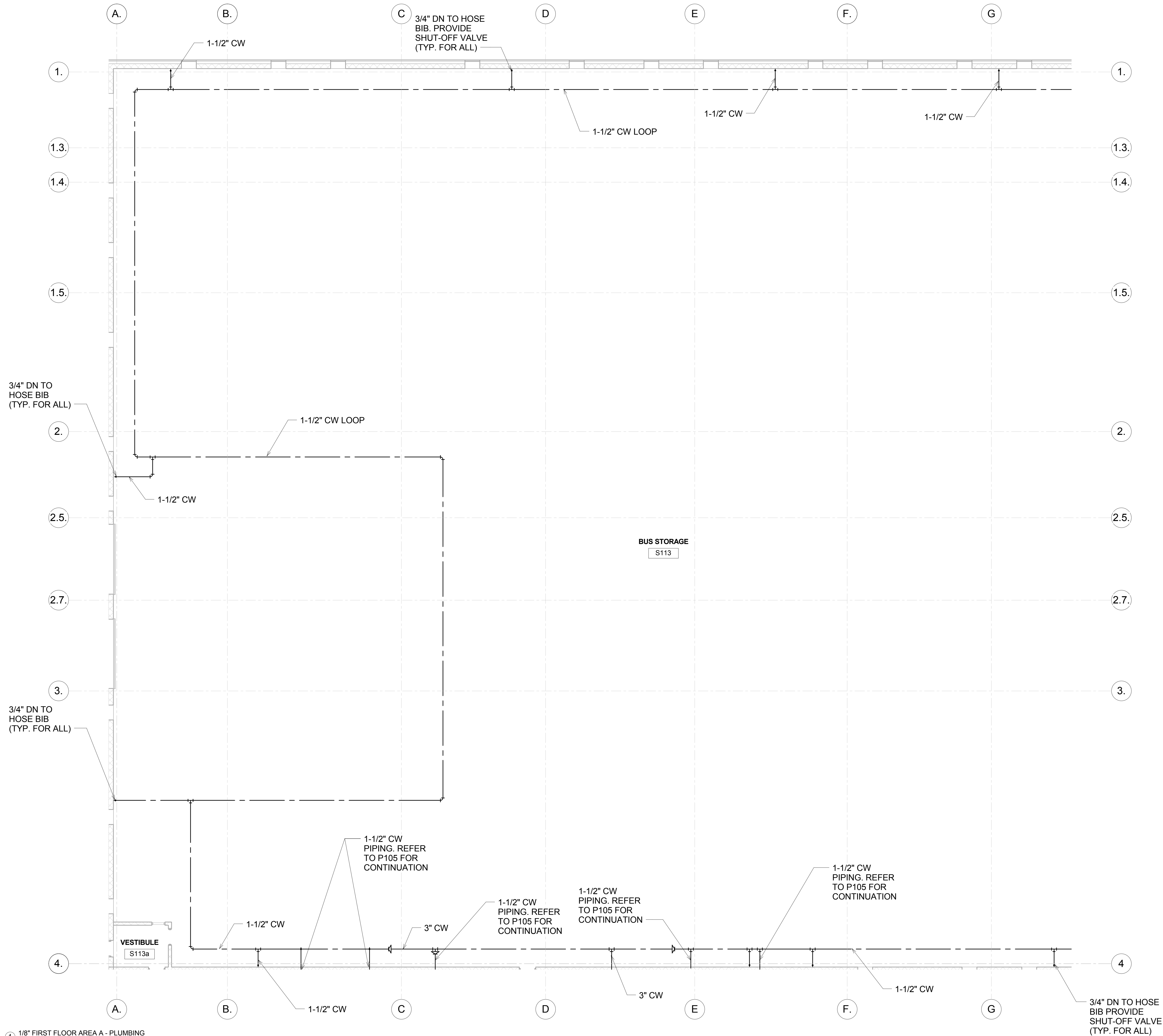
INDEX OF DRAWINGS

Connecticut Department of Transportation

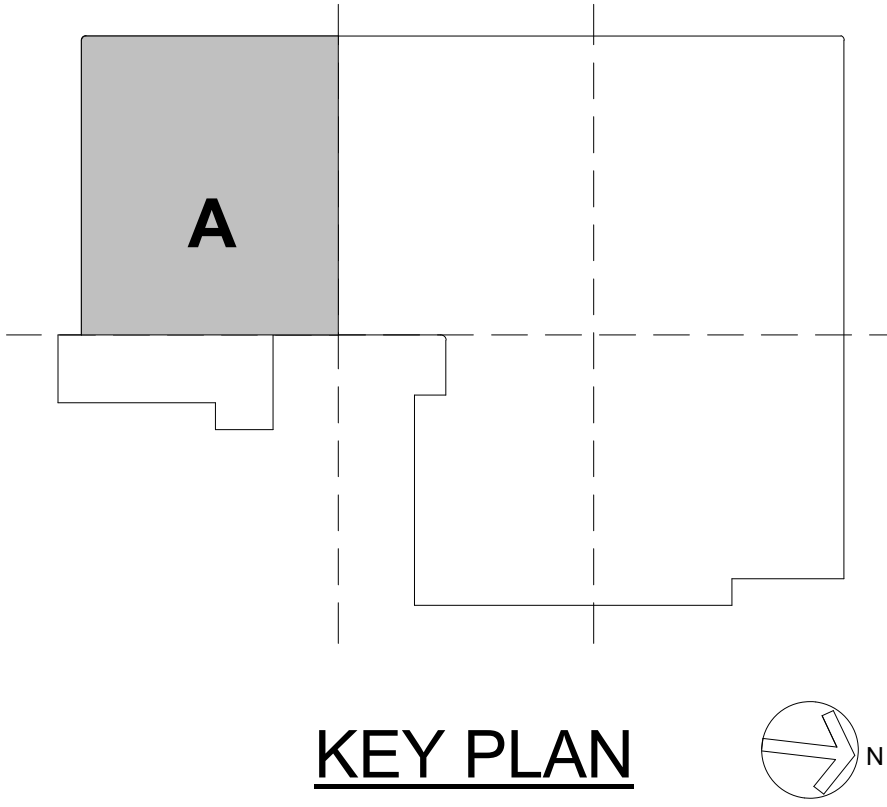
GENERAL NOTES				ABBREVIATIONS			
<div>PIPING SYMBOLS</div> <div><div><div><div></div><div></div></div><div>COLD WATER PIPING</div></div><div><div><div></div><div></div></div><div>GAS PIPING</div></div><div><div><div></div><div></div></div><div>ROOF DRAINAGE PIPING</div></div><div><div><div></div><div></div></div><div>SANITARY PIPING</div></div><div><div><div></div><div></div></div><div>VENT PIPING</div></div></div> <div><div>1. ALL PIPING IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN A FURRED CHASE OR ABOVE THE HARD SUSPENDED CEILING.</div><div>2. ACCESS PANELS IN HARD SUSPENDED CEILINGS ARE REQUIRED FOR ALL VALVES, TRAPS, DAMPERS, CLEANOUTS, CONTROLS, ETC. ACCESS PANELS SHALL BE FURNISHED AND INSTALLED UNDER THE ARCHITECTURAL SPECIFICATIONS.</div><div>3. FOR TYPICAL STEAM AND WATER PIPING CONNECTIONS TO EQUIPMENT, SEE STANDARD EQUIPMENT DETAILS.</div><div>4. WATER PIPE CONNECTIONS TO AIR HEATING AND COOLING COILS SHALL BE MADE TO PROVIDE COUNTER FLOW BETWEEN WATER AND AIR.</div><div>5.</div><div>6. ALL PRESSURES LISTED ARE GAGE PRESSURE UNLESS OTHERWISE NOTED</div><div>7. ALL EQUIPMENT TO BE REMOVED SHALL BE WRAPPED IN POLY BEFORE REMOVAL FROM MECHANICAL SPACE.</div></div> <div>CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER RECOVERY, RECYCLING AND/OR RECLAMATION OF ALL REFRIGERANTS. REFER TO SPECIFICATIONS.</div>				<div>A/E ARCHITECT / ENGINEER</div> <div>AS AIR SEPARATOR</div> <div>ASME AMERICAN SOCIETY OF MECHANICAL ENGINEERS</div> <div>BD BUTTERFLY DAMPER</div> <div>BDD BACKDRAFT DAMPER</div> <div>BDR BASE BOARD RADIATOR</div> <div>BFP BACKFLOW PREVENTER</div> <div>BG BOTTOM GRILLE</div> <div>BHP BRAKE HORSEPOWER</div> <div>BIW BACKWARD INCLINED WHEEL (FAN)</div> <div>BR BOTTOM REGISTER</div> <div>BT BLOWOFF TANK</div> <div>BTC BLOWOFF TANK CONTROL VALVE</div> <div>BTU BRITISH THERMAL UNIT</div> <div>BTUH BRITISH THERMAL UNIT PER HOUR</div> <div>C CENTIGRADE (CELCIUS)</div> <div>CC COOLING COIL</div> <div>CCD COOLING COIL CONDENSATE DRAIN</div> <div>CD CEILING DIFFUSER</div> <div>CD-1 CONSTRUCTION DOCUMENTS (SUBMISSION1)</div> <div>CO CLEAN OUT</div> <div>CW COLD WATER (POTABLE)</div> <div>EA EXHAUST AIR</div> <div>EAT ENTERING AIR TEMPERATURE</div> <div>EC EVAPORATIVE COOLER</div> <div>ECU EVAPORATIVE CONDENSER UNIT</div> <div>EDH ELECTRIC DUCT HEATER</div> <div>EER ENERGY EFFICIENCY RATIO</div> <div>EF EXHAUST FAN</div> <div>EG EXHAUST GRILLE</div> <div>EGS EMERGENCY GAS SHUTOFF</div> <div>EGT ENTERING GLYCOL TEMPERATURE</div> <div>EH EXHAUST HOOD</div> <div>EJ EXPANSION JOINT</div> <div>EMD END OF MAIN DRIP (STEAM)</div> <div>ENT ENTERING</div> <div>ER EXHAUST REGISTER</div> <div>ERC ELECTRIC REHEAT COIL</div> <div>ERP ELECTRIC RADIANT PANEL</div> <div>ESP EXTERNAL STATIC PRESSURE</div> <div>ET EXPANSION TANK</div> <div>EUH ELECTRIC UNIT HEATER</div> <div>EWC EVAPORATIVE WATER COOLER</div> <div>EWI ENTERING WATER TEMPERATURE</div> <div>EX EXISTING</div> <div>FD FLOOR DRAIN</div> <div>FD FIRE DAMPER</div> <div>GPR GAS PRESSURE REGULATOR</div> <div>H HUMIDIFIER</div> <div>H&CW HOT & COLD WATER</div> <div>HAC HOUSEKEEPING AID CLOSET</div> <div>HB HOSE BIBB</div> <div>HC HEATING COIL</div> <div>HD HEAD</div> <div>HD HOOD</div> <div>HOA HAND/OFF/AUTOMATIC</div> <div>HP HEAT PUMP</div> <div>HP HORSEPOWER</div> <div>HPDT HIGH PRESSURE DRIP TRAP</div> <div>HPR HIGH PRESSURE RETURN (STEAM CONDENSATE)</div> <div>HPS HIGH PRESSURE SUPPLY (STEAM)</div> <div>HRC HEAT RECOVERY COIL</div> <div>HRD HEAT RECOVERY DEVICE</div> <div>HRP HYDRONIC RADIANT (CEILING) PANEL</div> <div>HRW HEAT RECOVERY WHEEL</div> <div>HSTAT HUMIDISTAT</div> <div>HVU HEATING AND VENTILATING UNIT</div> <div>HW HOT WATER</div> <div>HWC HOT WATER COIL</div> <div>HWHC HOT WATER HEATING COIL</div> <div>HWP HEATING HOT WATER PUMP</div> <div>HWR HEATING HOT WATER RETURN</div> <div>HWS HEATING HOT WATER SUPPLY</div> <div>HWUH HOT WATER UNIT HEATER</div> <div>HVD HOISTWAY VENT DAMPER</div> <div>HX HEAT EXCHANGER</div> <div>HZ HERTZ</div> <div>I/O INPUT/OUTPUT</div> <div>IAQ INDOOR AIR QUALITY</div> <div>IBT INVERTED BUCKET TRAP</div> <div>ICF IN-LINE CENTRIFUGAL FAN</div> <div>ID INSIDE DIAMETER</div> <div>IFB INTEGRAL FACE AND BYPASS</div> <div>IN INCHES</div> <div>IN HG INCHES OF MERCURY</div> <div>IN WC INCH WATER COLUMN</div> <div>IN WG INCH WATER GAUGE</div> <div>IN-LB INCH-POUND</div> <div>IPLV INTERGRATED PART LOAD VALVE</div> <div>IRH INTRARED HEATER</div> <div>IS INSECT SCREEN</div> <div>IU INDUCTION UNIT</div> <div>IV INLET VANES</div> <div>J INTENTIONALLY LEFT BLANK</div> <div>kg KILOGRAM</div> <div>kg/HR KILOGRAM PER HOUR</div> <div>kPa KILOPASCAL</div> <div>kW KILOWATT</div> <div>kWh KILOWATT HOUR</div> <div>L LITER</div> <div>L/h LITERS PER HOUR (OR LITERS/HOUR)</div> <div>L/m LITERS PER MINUTE (OR LITERS/MINUTE)</div> <div>L/s LITERS PER SECOND (OR LITERS/SECOND)</div> <div>LAT LEAVING AIR TEMPERATURE</div> <div>LBS/HR POUNDS PER HOUR</div> <div>LF LINEAR FOOT (FEET)</div> <div>LGT LEAVING GLYCOL TEMPERATURE</div> <div>LH LATENT HEAT</div> <div>LPG LIQUID PROPANE GAS</div> <div>LPR LOW PRESSURE RETURN (STEAM CONDENSATE)</div> <div>LPRC LOW PRESSURE STEAM RETURN (CLEAN)</div> <div>LLHX LIQUID TO LIQUID HEAT EXCHANGER</div> <div>LPS LOW PRESSURE STEAM</div> <div>LPSC LOW PRESSURE STEAM (CLEAN)</div> <div>LSD LINEAR SLOT DIFFUSER</div> <div>LTCP LOCAL TEMPERATURE CONTROL PANEL</div> <div>LVG LEAVING</div> <div>LVR LOUVER</div> <div>LWT LEAVING WATER TEMPERATURE</div> <div>M METER, SI UNIT</div> <div>M/s METERS PER SECOND (OR METERS/SECOND)</div> <div>MA MIXED AIR</div> <div>MAT MIXED AIR TEMPERATURE</div> <div>MAU MAKE-UP AIR UNIT</div> <div>MAV MANUAL AIR VENT</div> <div>MAX MAXIMUM</div> <div>MB MIXING BOX</div> <div>MBH 1000 BTUH</div> <div>MCA MINIMUM BRANCH CIRCUIT AMPACITY</div> <div>MER MECHANICAL EQUIPMENT ROOM</div> <div>MERV MINIMUM EFFICIENCY REPORTING VALUE</div> <div>MH MANHOLE</div> <div>MHP MOTOR HORSEPOWER</div> <div>MIN MINIMUM</div> <div>MM MILLIMETER</div> <div>MOV MOTOR OPERATED VALVE</div> <div>MPR MEDIUM PRESSURE RETURN (STEAM CONDENSATE)</div> <div>MPS MEDIUM PRESSURE STEAM</div> <div>MTD MEAN TEMPERATURE DIFFERENCE</div> <div>MVD MANUAL VOLUME DAMPER</div> <div>MZ MULTI-ZONE</div> <div>NA NOT APPLICABLE</div> <div>NC NOISE CRITERIA</div> <div>NC NORMALLY CLOSED</div> <div>NG NATURAL GAS</div> <div>NOFM NATURAL GAS FLOWMETER</div> <div>NO NORMALLY OPEN</div> <div>NOM NOMINAL</div> <div>NPLV NON-STANDARD PART LOAD VALUE</div> <div>NPSH NET POSITIVE SUCTION HEAD</div> <div>NTS NOT TO SCALE</div> <div>OA OUTSIDE AIR</div> <div>OAG OUTSIDE AIR GRILLE</div> <div>OAI OUTSIDE AIR INTAKE</div> <div>OD OUTSIDE DIAMETER</div> <div>P PUMP</div> <div>PA PASCAL</div> <div>PC PUMPED CONDENSATE</div> <div>PCF POUNDS PER CUBIC FOOT (FEET)</div> <div>PD PRESSURE DROP</div> <div>PEF PROPELLER (TYPE) EXHAUST FAN</div> <div>PF PRE-FILTER</div> <div>PG PRESSURE GAGE</div> <div>PCW PROPYLENE GLYCOL-WATER (SOLUTION)</div> <div>PHC PREHEAT COIL</div> <div>PPM PARTS PER MILLION</div> <div>PRS PRESSURE REGULATING (VALVE) STATION</div> <div>PRV PRESSURE REGULATING VALVE</div> <div>PSI POUNDS PER SQUARE INCH</div> <div>PSIA POUNDS PER SQUARE INCH -ABSOLUTE</div> <div>PSIG POUNDS PER SQUARE INCH -GAGE</div> <div>PSS PRIMARY SECONDARY SYSTEM</div> <div>PSV PRESSURE SAFETY VALVE</div> <div>PTAC PACKAGED TERMINAL AIR CONDITIONER</div> <div>R/E RETURN OR EXHAUST</div> <div>RA RETURN AIR</div> <div>RAD REFRIGERANT AIR DRYER</div> <div>RAHX ROTARY AIR HEAT EXCHANGER</div> <div>RAT RETURN AIR TEMPERATURE</div> <div>RCCH REMOTE CONDENSER CHILLER</div> <div>RCU RECIPROCATING CHILLER UNIT</div> <div>RD REFRIGERANT DISCHARGE</div> <div>RDS ROOM DATA SHEETS</div> <div>REA RELIEF AIR</div> <div>RF RETURN FAN</div> <div>RG RETURN GRILLE</div> <div>RH RELATIVE HUMIDITY</div> <div>RHC REHEAT COIL</div> <div>RHG REFRIGERANT HOT GAS</div> <div>RL REFRIGERANT LIQUID LINE</div> <div>RLA RUN LOAD AMPERE</div> <div>RO REVERSE OSMOSIS</div> <div>RPM REVOLUTIONS PER MINUTE</div> <div>RR RETURN REGISTER</div> <div>RS REFRIGERANT SUCTION</div> <div>RTU ROOF TOP UNIT</div> <div>RV RELIEF VALVE</div> <div>SA SUPPLY AIR</div> <div>SAD SOUND ATTENUATING DEVICE</div> <div>SAT SUPPLY AIR TEMPERATURE</div> <div>SC SHADING COEFFICIENT</div> <div>SCFM STANDARD CUBIC FEET PER MINUTE</div> <div>SCR SILICON CONTROLLED RECTIFIER</div> <div>SD SMOKE DETECTOR</div> <div>SD SUPPLY AIR DIFFUSER</div> <div>SDPR SMOKE DAMPER</div> <div>SDR SMOKE DAMPER (RETURN)</div> <div>SDS SMOKE DAMPER (SUPPLY)</div> <div>SEN SENSIBLE HEAT</div> <div>SF SUPPLY FAN</div> <div>SG SUPPLY AIR GRILLE</div> <div>SH STEAM HUMIDIFIER</div> <div>SHC STEAM HEATING COIL</div> <div>SI SQUARE INCHES</div> <div>SP STATIC PRESSURE</div> <div>SP GR SPECIFIC GRAVITY</div> <div>SPD SUPPLY PROCESS AND DISTRIBUTION</div> <div>SPRV STEAM PRESSURE REDUCING VALVE</div> <div>SPS STATIC PRESSURE SENSOR</div> <div>SQ FT SQUARE FOOT (FEET)</div> <div>SR SUPPLY AIR REGISTER</div> <div>SS STAINLESS STEEL</div> <div>SSHX STEAM TO STEAM HEAT EXCHANGER</div> <div>SSR SOLID SEPARATOR</div> <div>ST STEAM TRAP</div> <div>SUH STEAM UNIT HEATER</div> <div>SV STEAM PRESSURE REDUCING VALVE</div> <div>SVS STEAM VENT SILENCER</div> <div>SWHX STEAM TO WATER HEAT EXCHANGER</div> <div>V VALVE</div> <div>VAF VANE-AXIAL FAN</div> <div>VAV VARIABLE AIR VOLUME</div> <div>VD VOLUME DAMPER (MANUAL OPPOSED BLADE)</div> <div>VFD VARIABLE FREQUENCY DRIVE</div> <div>VHA VETERANS HEALTH ADMINISTRATION</div> <div>VI VIBRATION ISOLATOR</div> <div>VIV VARIABLE INLET VANES</div> <div>VP VACUUM PUMP</div> <div>VPS VARIABLE PRIMARY SYSTEM</div> <div>VR VACUUM (STEAM CONDENSATE) RETURN</div> <div>VSD VARIABLE SPEED DRIVE</div> <div>VUH VERTICAL UNIT HEATER</div> <div>W WATTS</div> <div>Wb WET-BULB (TEMPERATURE)</div> <div>WC WATER COOLED</div> <div>WCCH WATER COOLED CHILLER</div> <div>WCCU WATER COOLED CONDENSING UNIT</div> <div>WCHP WATER COOLED HEAT PUMPS</div> <div>WCPU WATER COOLED PACKAGED UNIT</div> <div>WEF WALL EXHAUST FAN</div> <div>WF WATER FILTER</div> <div>WFCV WATER FLOW CONTROL VALVE</div> <div>WFM WATER FLOWMETER</div> <div>WFMD WATER FLOW MEASURING DEVICE</div> <div>WG WATER GAGE</div> <div>WPD WATER SIDE PRESSURE DROP</div>			
<div>VALVE SYMBOLS</div> <div><div><div><div></div><div></div></div><div>GATE VALVE – THREADED/FLANGED</div></div><div><div><div></div><div></div></div><div>GLOBE VALVE – THREADED/FLANGED</div></div><div><div><div></div><div></div></div><div>GATE VALVE WITH 3/4” HOSE ADAPTER</div></div><div><div><div></div><div></div></div><div>CHECK VALVE</div></div><div><div><div></div><div></div></div><div>WYE STRAINER (WITH BALL VALVE & HOSE CONNECTION)</div></div><div><div><div></div><div></div></div><div>WYE STRAINER WITH VALVED DRAIN AND QUICK-COUPLE HOSE CONNECTOR</div></div><div><div><div></div><div></div></div><div>FLEXIBLE CONNECTION</div></div><div><div><div></div><div></div></div><div>ANGLE GLOBE VALVE</div></div><div><div><div></div><div></div></div><div>BUTTERFLY VALVE</div></div><div><div><div></div><div></div></div><div>BALL VALVE</div></div><div><div><div></div><div></div></div><div>MODULATING CONTROL VALVE</div></div><div><div><div></div><div></div></div><div>MODULATING CONTROL BUTTERFLY VALVE</div></div><div><div><div></div><div></div></div><div>TWO POSITION CONTROL VALVE</div></div><div><div><div></div><div></div></div><div>THREE-WAY MODULATING CONTROL VALVE</div></div><div><div><div></div><div></div></div><div>THREE-WAY TWO POSITION CONTROL VALVE</div></div><div><div><div></div><div></div></div><div>PRESSURE REGULATING VALVE</div></div><div><div><div></div><div></div></div><div>PRESSURE SAFETY VALVE</div></div><div><div><div></div><div></div></div><div>AUTOMATIC BALANCING CONTROL VALVE</div></div><div><div><div></div><div></div></div><div>WATER BALANCE DEVICE</div></div><div><div><div></div><div></div></div><div>CIRCUIT SETTER VALVE</div></div><div><div><div></div><div></div></div><div>GATE VALVE WITH GLOBE-VALVED BYPASS</div></div><div><div><div></div><div></div></div><div>PLUG VALVE</div></div><div><div><div></div><div></div></div><div>CONTROL VALVE (CV) – FLOAT-OPERATED</div></div><div><div><div></div><div></div></div><div>PRESSURE REDUCING VALVE (PRV)</div></div><div><div><div></div><div></div></div><div>WATER LEVEL CONTROLLER</div></div><div><div><div></div><div></div></div><div>FLOW METER</div></div></div> <div><div>DIRECTION OF PIPE PITCH (DOWN)</div><div>DIRECTION OF FLOW</div><div>ANCHOR</div><div>REDUCER OR INCREASER</div><div>ECCENTRIC REDUCER</div><div>TOP CONNECTION, 45° OR 90°</div><div>BOTTOM CONNECTION, 45° OR 90°</div><div>SIDE CONNECTION</div><div>CAPPED OUTLET</div><div>RISE OR DROP IN PIPE</div><div>UNION</div><div>PIPE UP</div><div>PIPE DOWN</div><div>FLUATDOWN THERMOSTATIC TRAP SET INCLUDING</div><div>INVERTED BUCKET TRAP SET INCLUDING PIPING ACCESSORIES SEE DETAIL</div><div>PIPING ACCESSORIES SEE DETAIL</div><div>THERMOSTATIC TRAP SET INCLUDING PIPING ACCESSORIES SEE DETAIL</div><div>THERMOMETER</div><div>PRESSURE GAGE</div><div>FLOW ELEMENT</div><div>REFRIGERANT SIGHT GLASS</div><div>TEST PLUG (PRESSURE/TEMPERATURE)</div><div>AUTOMATIC AIR VENT</div><div>MANUAL AIR VENT</div><div>QUICK-COUPLE HOSE CONNECTOR</div></div>				<div>DRAWING SYMBOLS</div> <div><div><div><div></div><div></div></div><div>2</div><div>DETAIL NUMBER</div></div><div><div><div></div><div></div></div><div>H4</div><div>DRAWING NUMBER WHERE DRAWN</div></div><div><div><div></div><div></div></div><div>A</div><div>SECTION LETTER</div></div><div><div><div></div><div></div></div><div>H7</div><div>DRAWING NUMBER WHERE SHOWN</div></div><div><div><div></div><div></div></div><div>BUILDING NO. WHERE EQUIPMENT IS LOCATED.</div></div><div><div><div></div><div></div></div><div>EQUIPMENT ABBREVIATION (SUPPLY FAN)</div></div><div><div><div></div><div></div></div><div>SUPPLY FAN NO. 3 IN BUILDING NO. 26</div></div><div><div><div></div><div></div></div><div>TYPICAL UNIT NO.</div></div><div><div><div></div><div></div></div><div>BUILDING NO. WHERE EQUIPMENT IS LOCATED</div></div><div><div><div></div><div></div></div><div>ITEM (TERMINAL UNIT SHOWN)</div></div><div><div><div></div><div></div></div><div>ITEM NUMBER (TERMINAL UNIT NO. 1)</div></div><div><div><div></div><div></div></div><div>SERVED BY AIR HANDLER UNIT NO. 1</div></div></div>			



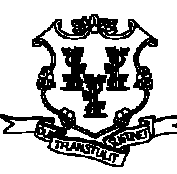
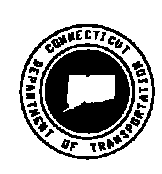
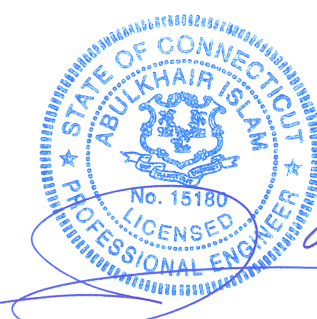
				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: SPD ES		<div><div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div></div> <div>DESIGNED BY: AI ENGINEERS 919 MIDDLE STREET MIDDLETOWN CT 06457</div> <div></div>		PROJECT TITLE: FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787		PROJECT NO: 0431-0006	
						CHECKED BY:				DRAWING TITLE: WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT		DRAWING NO. P-101	
REV. DATE DESCRIPTION SHEET NO.						SCALE: 1/8" = 1'-0"		ARCHITECT: WENDEL		ENGINEERS: Robert St. Denis, Clough Harbour Assoc., AI Engineers, Wenel		SHEET NO. 10.003	
FILENAME:						APPROVED BY: JL		DATE: 06/11/2014					

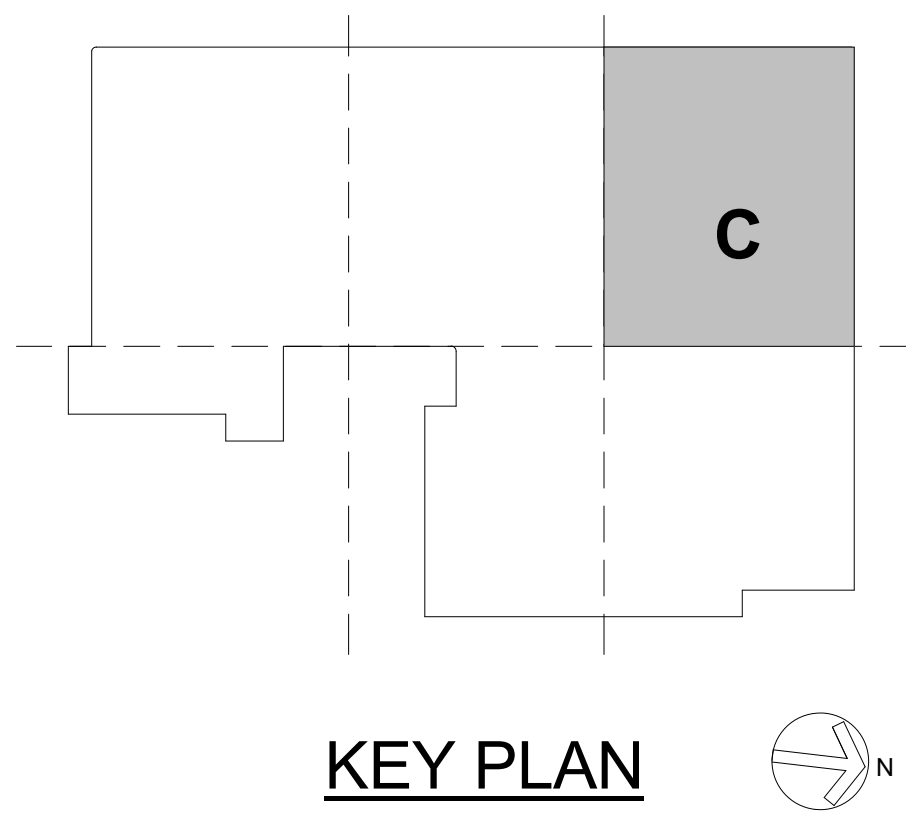
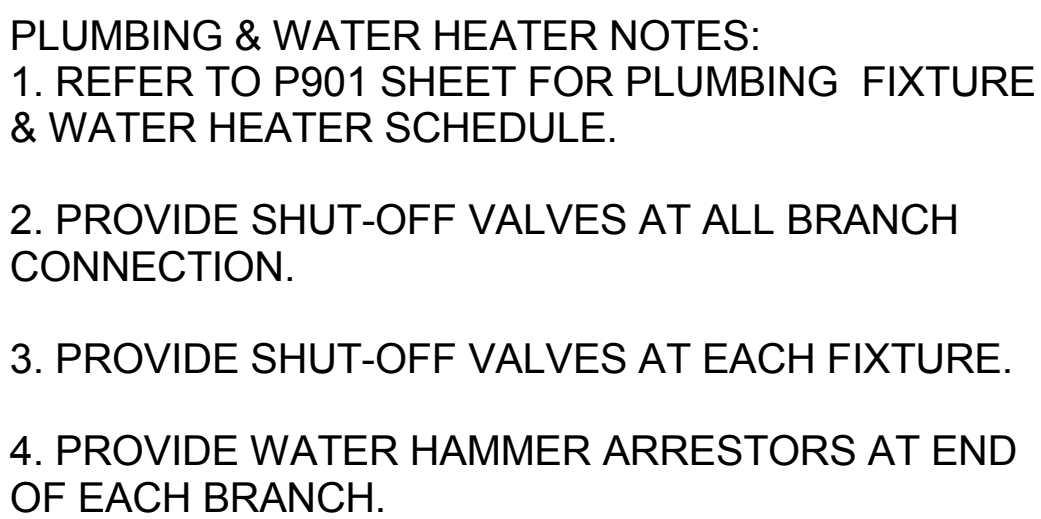


- PLUMBING & WATER HEATER NOTES:
1. REFER TO P901 SHEET FOR PLUMBING FIXTURE & WATER HEATER SCHEDULE.
 2. PROVIDE SHUT-OFF VALVES AT ALL BRANCH CONNECTION.
 3. PROVIDE SHUT-OFF VALVES AT EACH FIXTURE.
 4. PROVIDE WATER HAMMER ARRESTORS AT END OF EACH BRANCH.



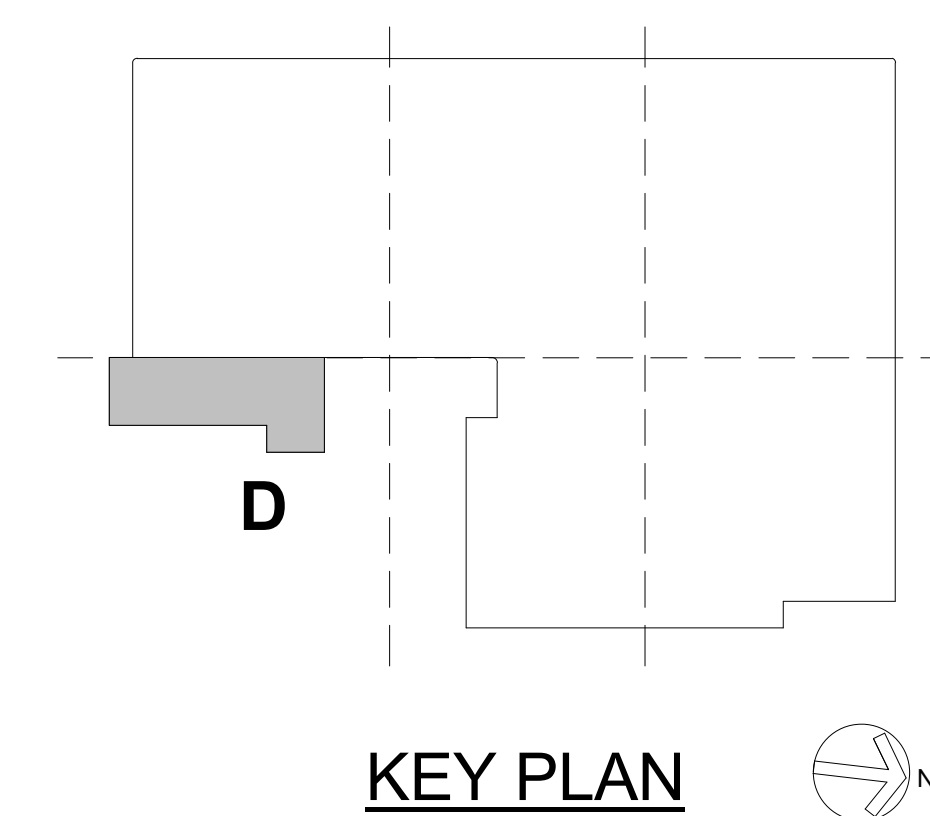
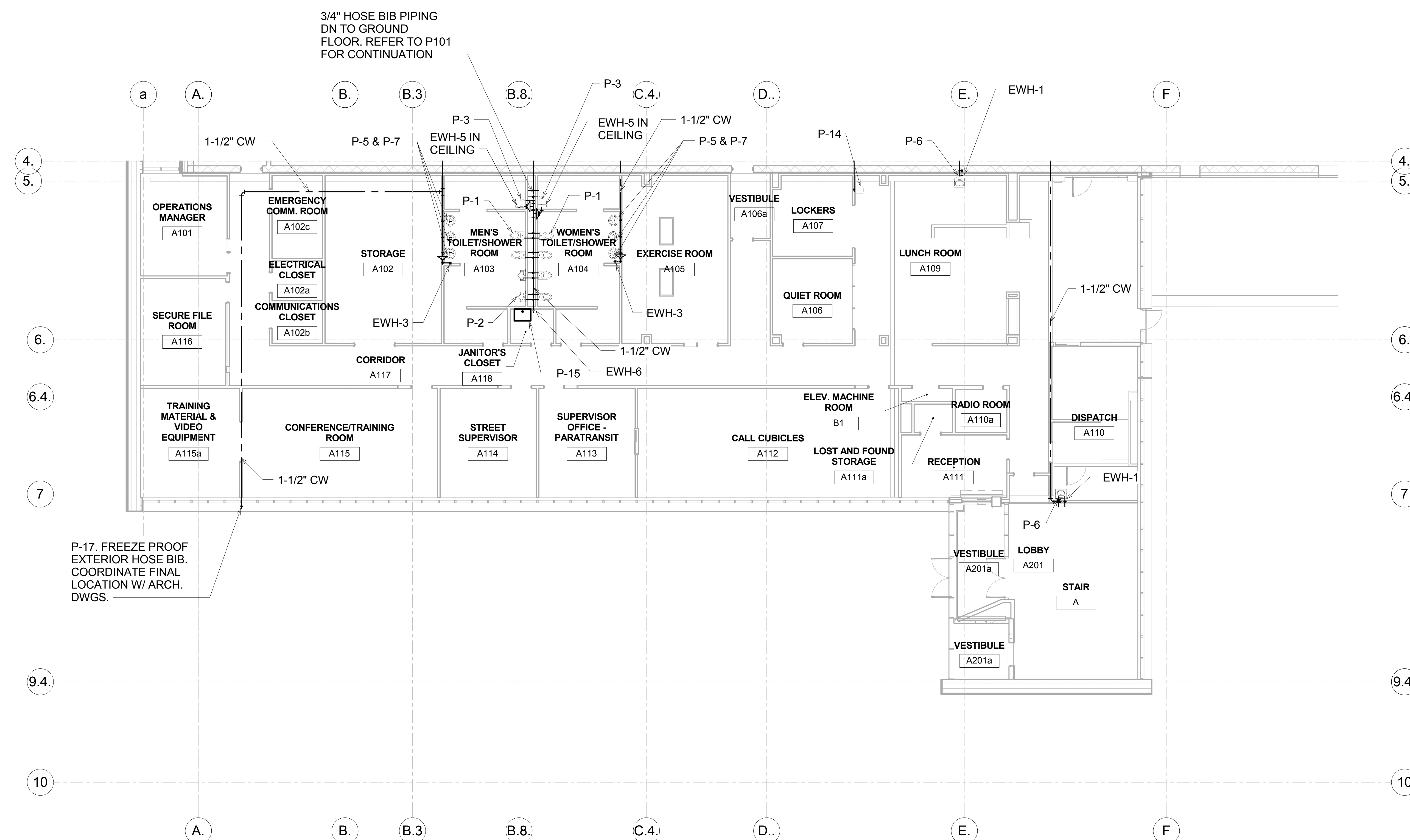
1 1/8" FIRST FLOOR AREA A - PLUMBING
1/8" = 1'-0"

				DESIGNER/DRAFTER: SPD		<div><div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div></div>		DESIGNED BY: AI ENGINEERS 919 MIDDLE STREET MIDDLETOWN CT 06457		<div></div>		PROJECT TITLE: WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT		ADDRESS: FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787		PROJECT NO: 0431-0006	
				CHECKED BY: ES										DRAWING TITLE: PLUMBING FIRST FLOOR PLAN - AREA A		DRAWING NO. P-102	
				SCALE: 1/8" = 1'-0"		ARCHITECT: WENDEL		ENGINEERS: R&STL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL						SHEET NO. 10.004			
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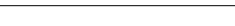




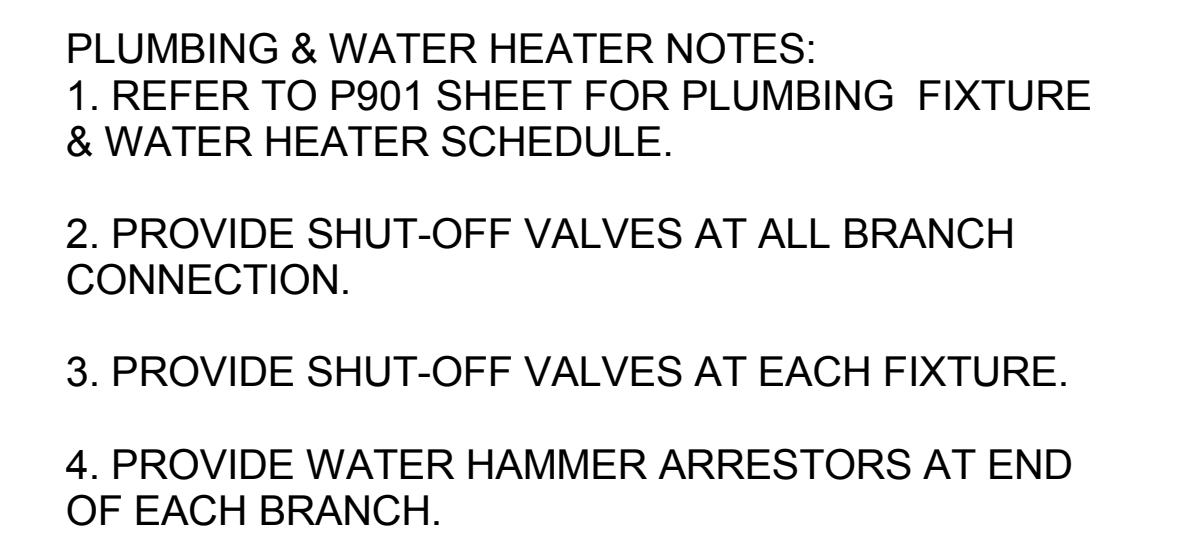
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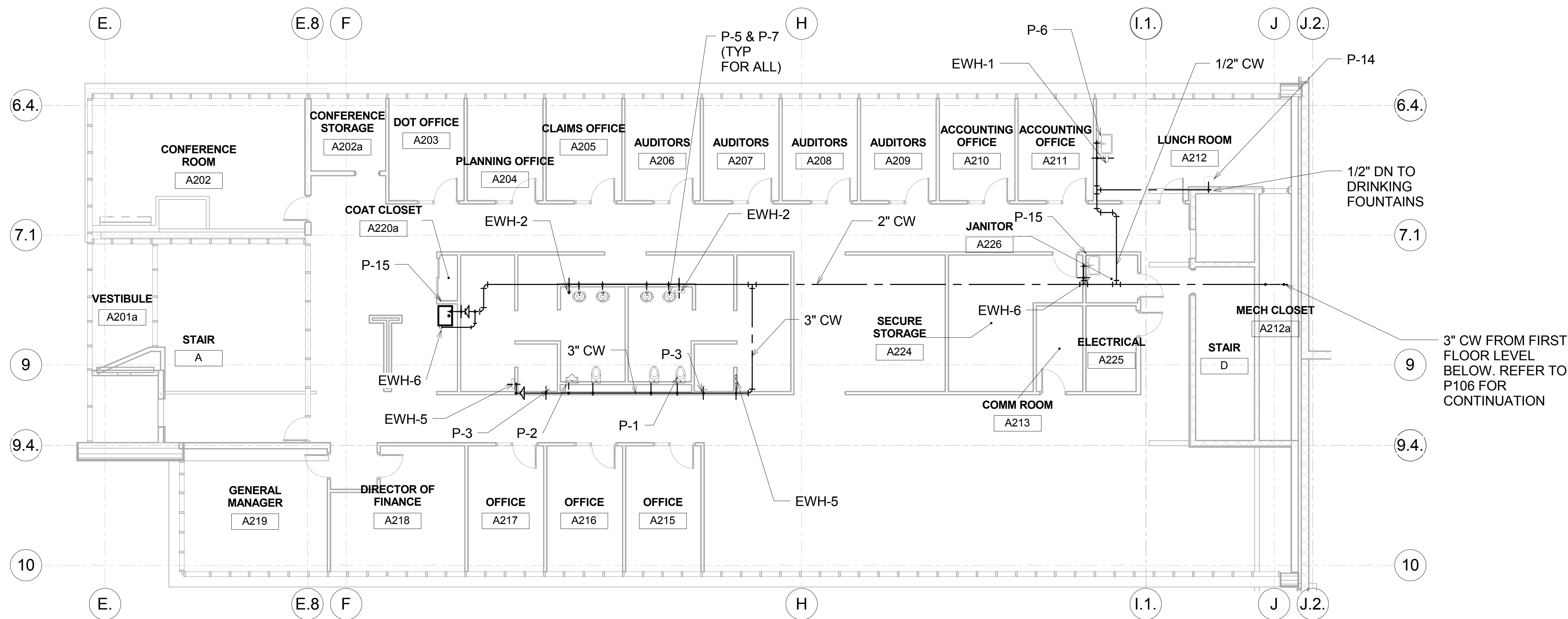
1 1/8" FIRST FLOOR AREA D - PLUMBING
1/8" = 1'-0"

				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	DESIGNER/DRAFTER: SPD		<div style="text-align: center;">  <h2 style="margin: 0;">STATE OF CONNECTICUT</h2> <h3 style="margin: 0;">DEPARTMENT OF TRANSPORTATION</h3>  </div>	DESIGNED BY: AI ENGINEERS 919 MIDDLE STREET MIDDLETOWN CT 06457		<div style="text-align: center;">  </div>	PROJECT TITLE: <div style="text-align: center;"> <h2 style="margin: 0;">WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT</h2> </div>		ADDRESS: FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787		PROJECT NO: <div style="text-align: center;"> <h2 style="margin: 0;">0431-0006</h2> </div>	
					CHECKED BY: ES								DRAWING TITLE: <div style="text-align: center;"> <h2 style="margin: 0;">PLUMBING FIRST FLOOR PLAN - AREA D</h2> </div>		DRAWING NO: <div style="text-align: center;"> <h2 style="margin: 0;">P-105</h2> </div>	
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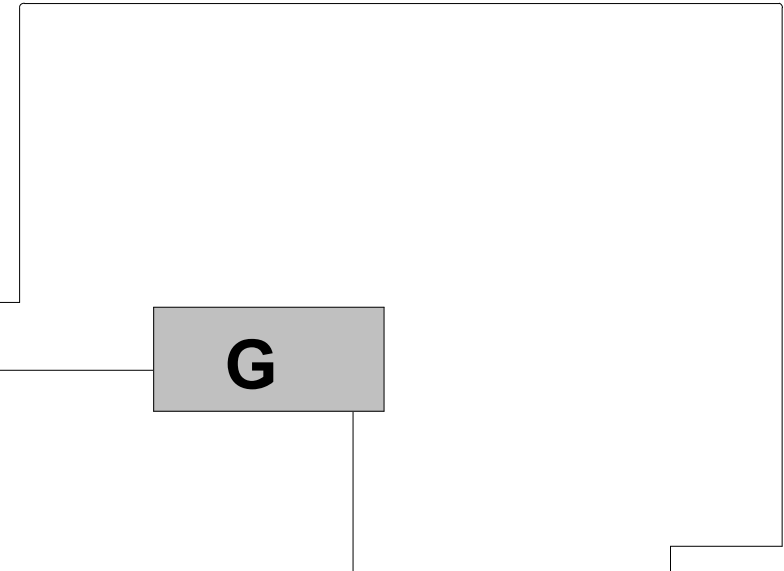


0.009

- PLUMBING & WATER HEATER NOTES:
1. REFER TO P901 SHEET FOR PLUMBING FIXTURE & WATER HEATER SCHEDULE.
 2. PROVIDE SHUT-OFF VALVES AT ALL BRANCH CONNECTION.
 3. PROVIDE SHUT-OFF VALVES AT EACH FIXTURE.
 4. PROVIDE WATER HAMMER ARRESTORS AT END OF EACH BRANCH.

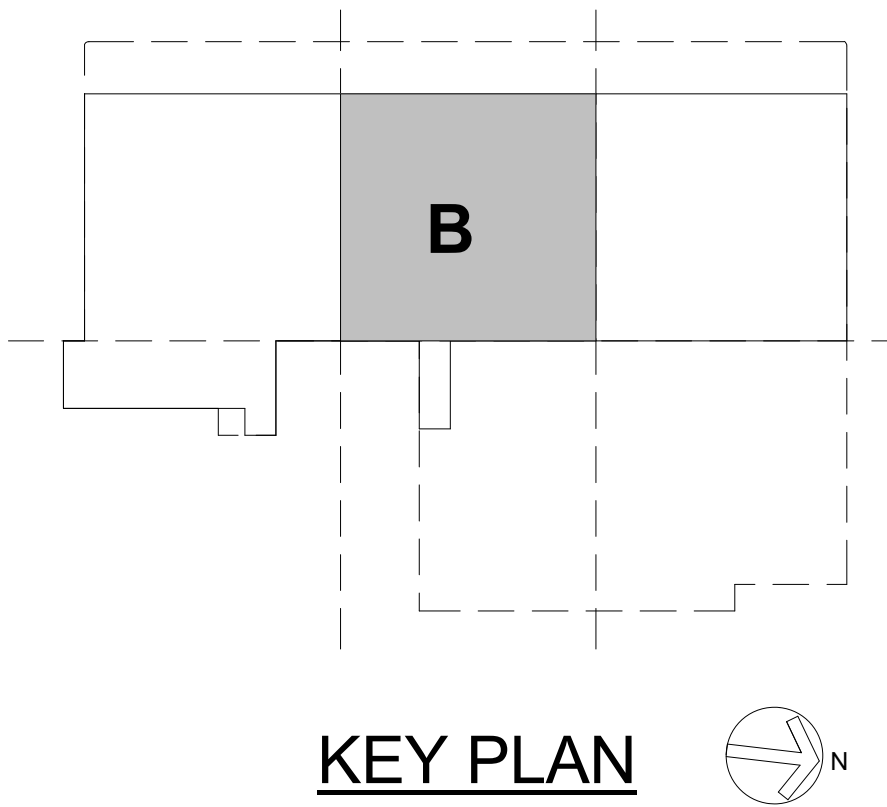
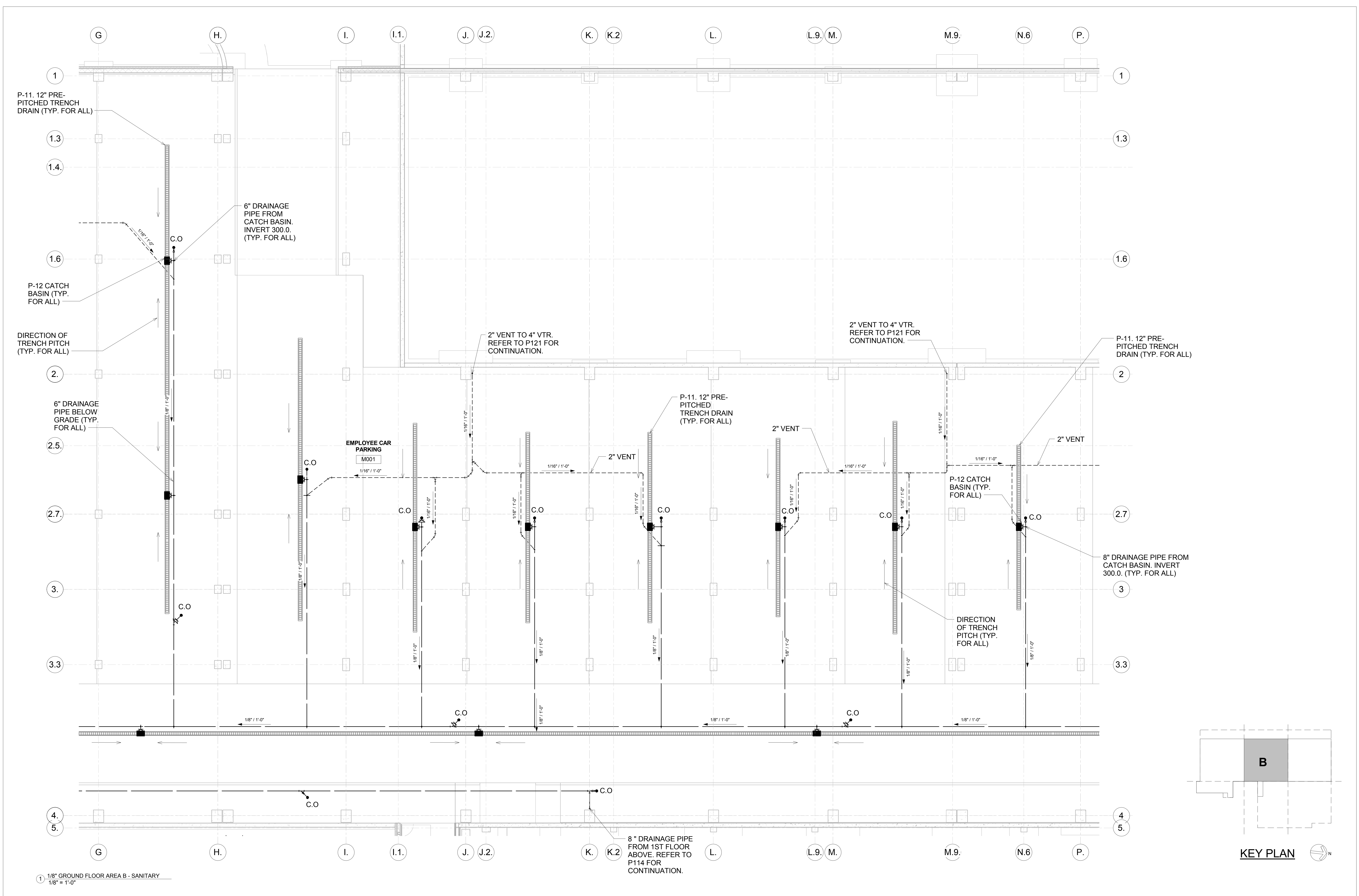



1/8" SECOND FLOOR AREA G -
PLUMBING
1/8" = 1'-0"

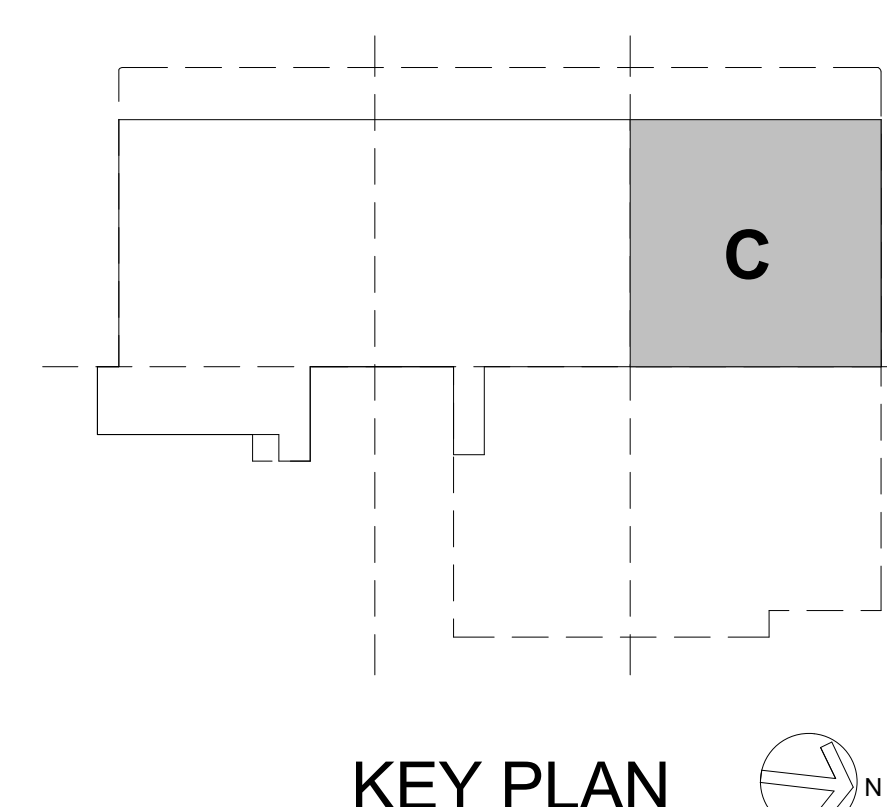


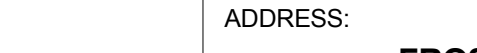
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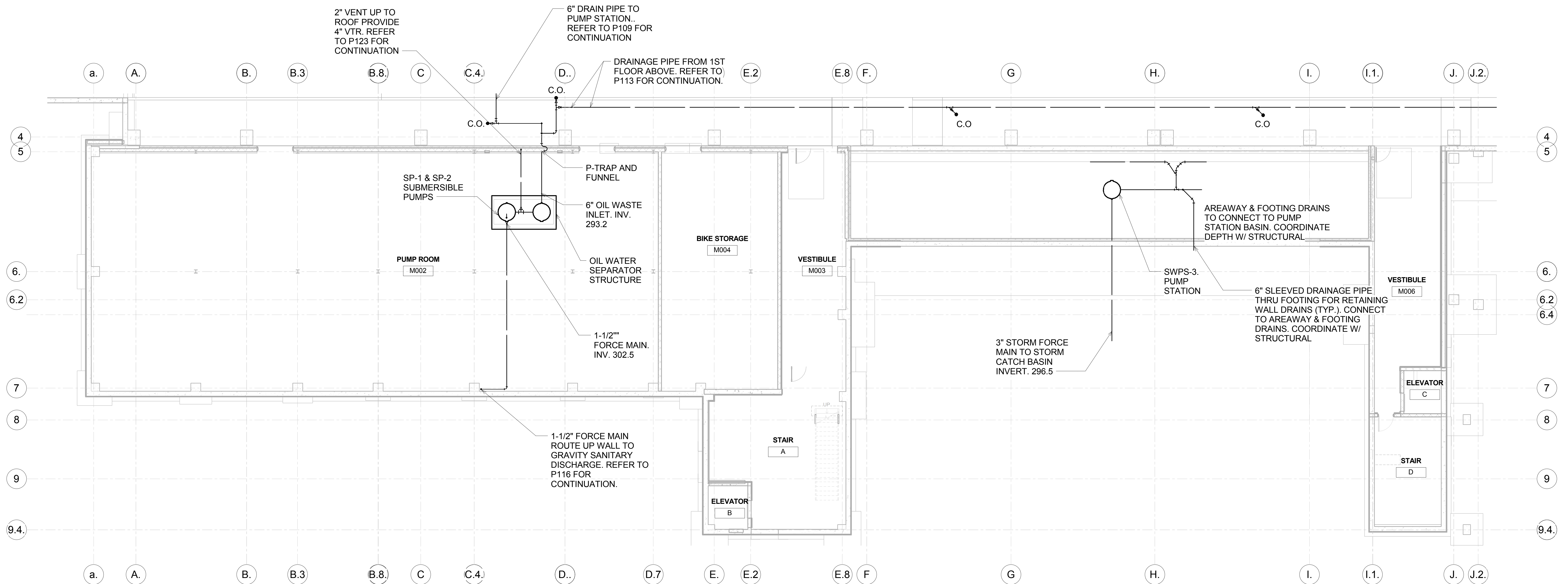
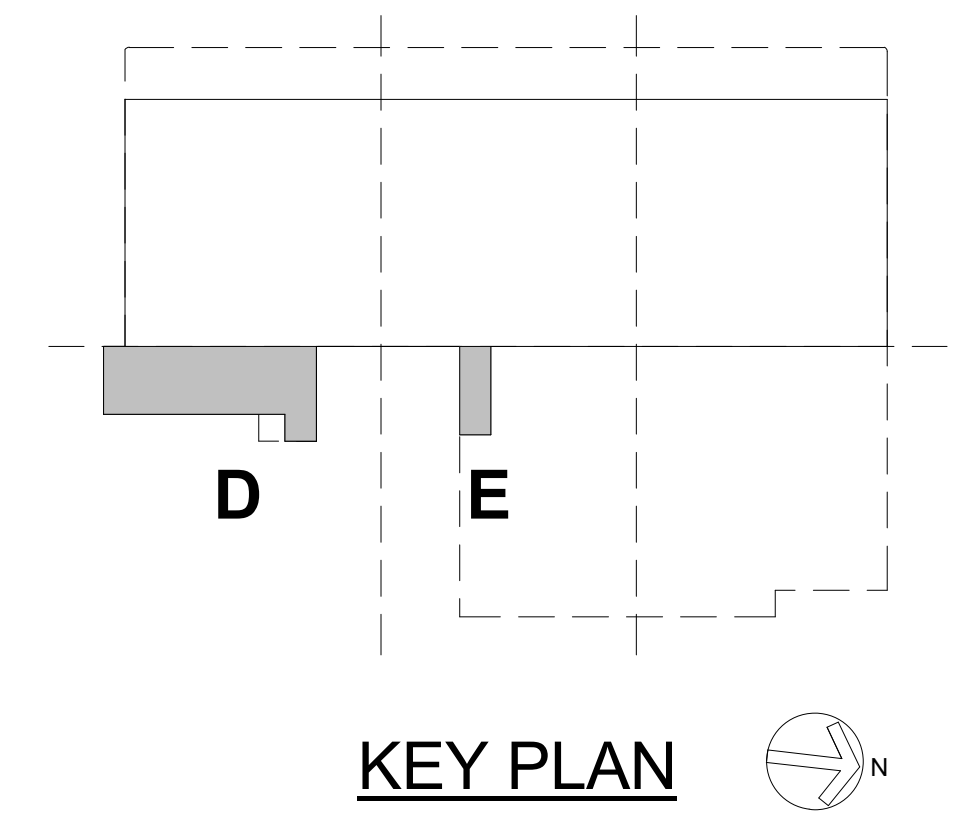
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				CHECKED BY: <div>ES</div>			ENGINEERS: R&STL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL			DRAWING TITLE: PLUMBING SECOND FLOOR PLAN - AREA G		DRAWING NO. P-108				
REV. DATE DESCRIPTION SHEET NO.				SCALE: 1/8" = 1'-0"			ARCHITECT: WENDEL APPROVED BY: JL						SHEET NO. 10.010			
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				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: SPD CHECKED BY: ES SCALE: 1/8" = 1'-0"		<div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div> <div>ARCHITECT: WENDEL APPROVED BY: JL</div> <div>ENGINEERS: R&STL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL DATE: 06/11/2014</div>		<div>DESIGNED BY: AI ENGINEERS 919 MIDDLE STREET MIDDLETOWN CT 06457</div> <div></div>		PROJECT TITLE: WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT		ADDRESS: FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787		PROJECT NO: 0431-0006	
REV. DATE DESCRIPTION SHEET NO.												DRAWING TITLE: SANITARY GROUND FLOOR PLAN - AREA B		DRAWING NO: P-110		SHEET NO: 10.012	
FILENAME:																	

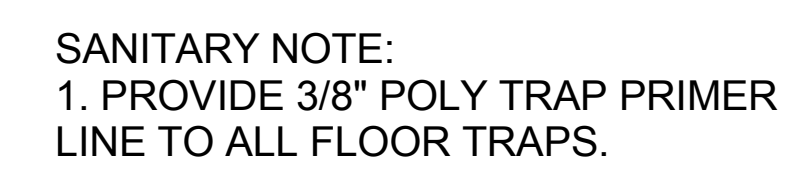


				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		<div>DESIGNER/DRAFTER: SPD</div> <div>CHECKED BY: ES</div> <div>SCALE: 1/8" = 1'-0"</div>		<div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div> <div>ARCHITECT: WENDEL</div> <div>APPROVED BY: JL</div>		<div>ENGINEERS: R&ST, DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL</div> <div>DATE: 06/11/2014</div>		<div>DESIGNED BY: AI ENGINEERS 919 MIDDLE STREET MIDDLETOWN CT 06457</div> <div></div>		<div>PROJECT TITLE:</div> <div>WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT</div>		<div>ADDRESS: FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787</div>		<div>PROJECT NO. 0431-0006</div>							
<table><thead><tr><th>REV.</th><th>DATE</th><th>DESCRIPTION</th><th>SHEET NO.</th></tr></thead><tbody><tr><td colspan="2"></td><td>REVISIONS</td><td></td></tr></tbody></table>				REV.	DATE	DESCRIPTION	SHEET NO.			REVISIONS												<div>DRAWING TITLE:</div> <div>SANITARY GROUND FLOOR PLAN - AREA C</div>		<div>DRAWING NO. P-111</div>	
REV.	DATE	DESCRIPTION	SHEET NO.																						
		REVISIONS																							
FILENAME:																<div>SHEET NO. 10.013</div>									




1/8" GROUND FLOOR AREA D & E -
SANITARY
1/8" = 1'-0"

				DESIGNER/DRAFTER: <div>SPD</div>		<div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div>	DESIGNED BY: AI ENGINEERS 919 MIDDLE STREET MIDDLETOWN CT 06457		<div>PROJECT TITLE: WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT</div>	ADDRESS: FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787		PROJECT NO: 0431-0006		
				CHECKED BY: <div>ES</div>						DRAWING NO. P-112				
				SCALE: 1/8" = 1'-0"						SHEET NO. 10.014				
				ARCHITECT: WENDEL			ENGINEERS: R&STL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL							
				APPROVED BY: JL			DATE: 06/11/2014							
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.														
REV. DATE DESCRIPTION REVISIONS SHEET NO.														
FILENAME:														



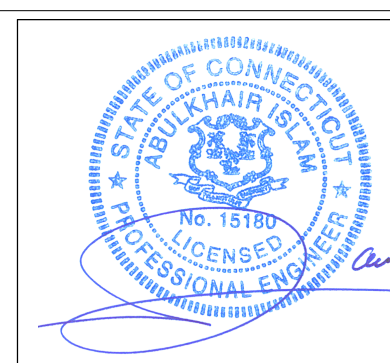
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STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



DESIGNED BY:
AI ENGINEERS
919 MIDDLE STREET
MIDDLETOWN CT
06457



PROJECT TITLE:	
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**WATERBURY BUS
MAINTENANCE FACILITY
REPLACEMENT**

ADDRESS:

FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:

**SANTARY FIRST FLOOR PLAN -
AREA A**

PROJECT NO. _____


0431-0006

DRAWING NO.

P-113
SHEET NO. **10.015**



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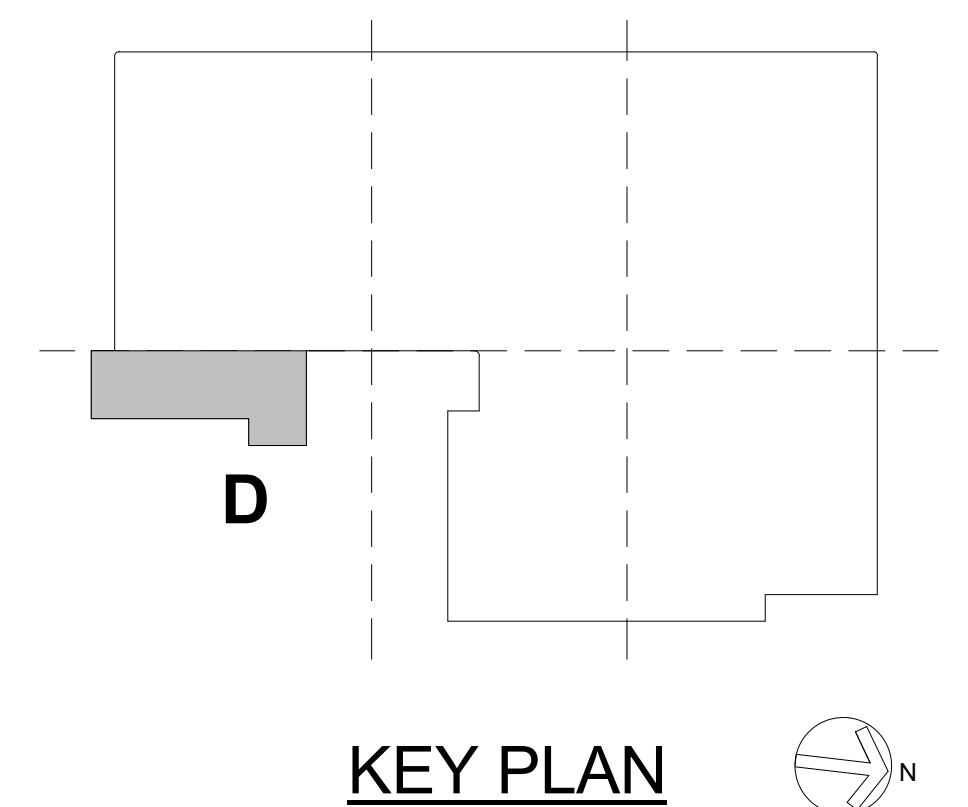
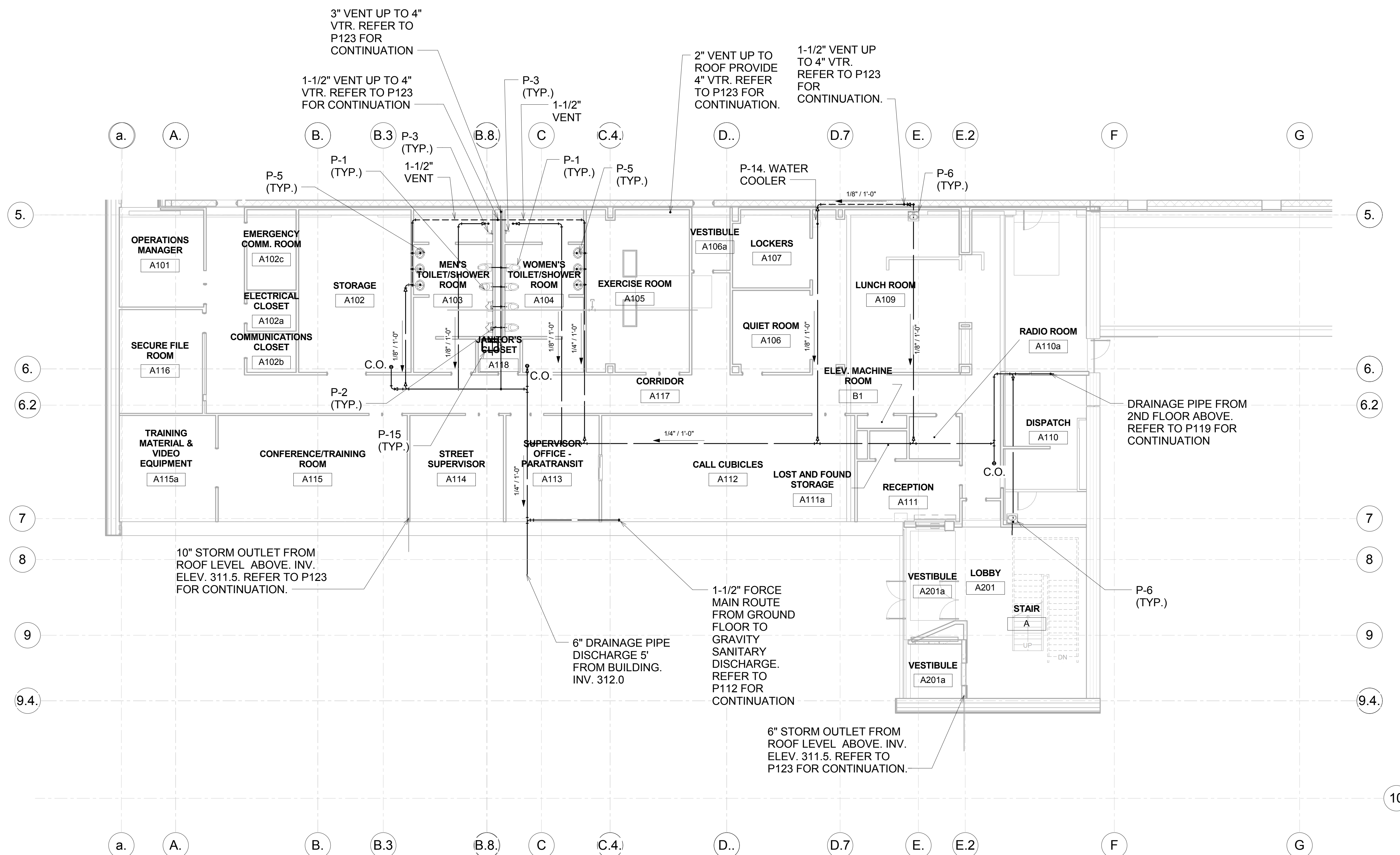


ARCHITECT: WENDEL
APPROVED BY: JL




ADDRESS:	FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787
DRAWING TITLE:	SANITARY FIRST FLOOR PLAN - AREA C

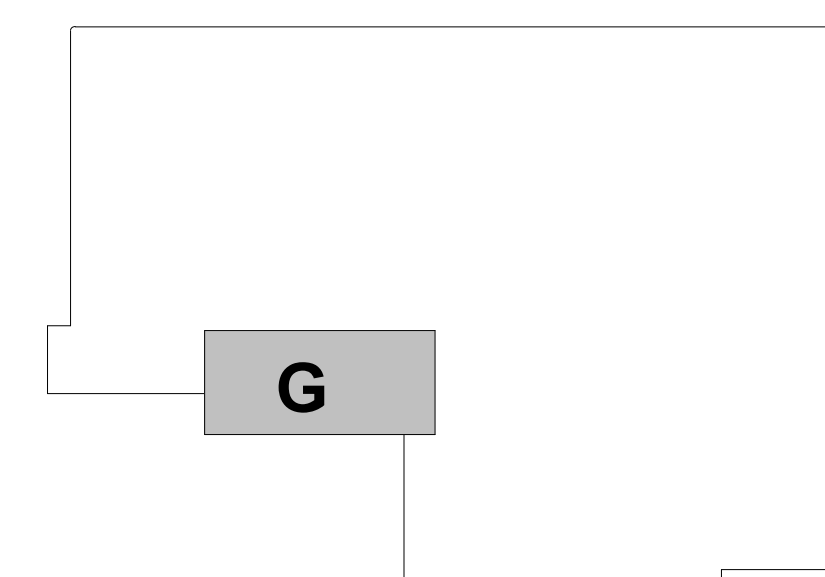
PROJECT NO.	0431-0006
DRAWING NO.	P-115
SHEET NO.	10.017

SANITARY NOTE:
1. PROVIDE 3/8" POLY TRAP PRIMER LINE TO ALL FLOOR TRAPS.

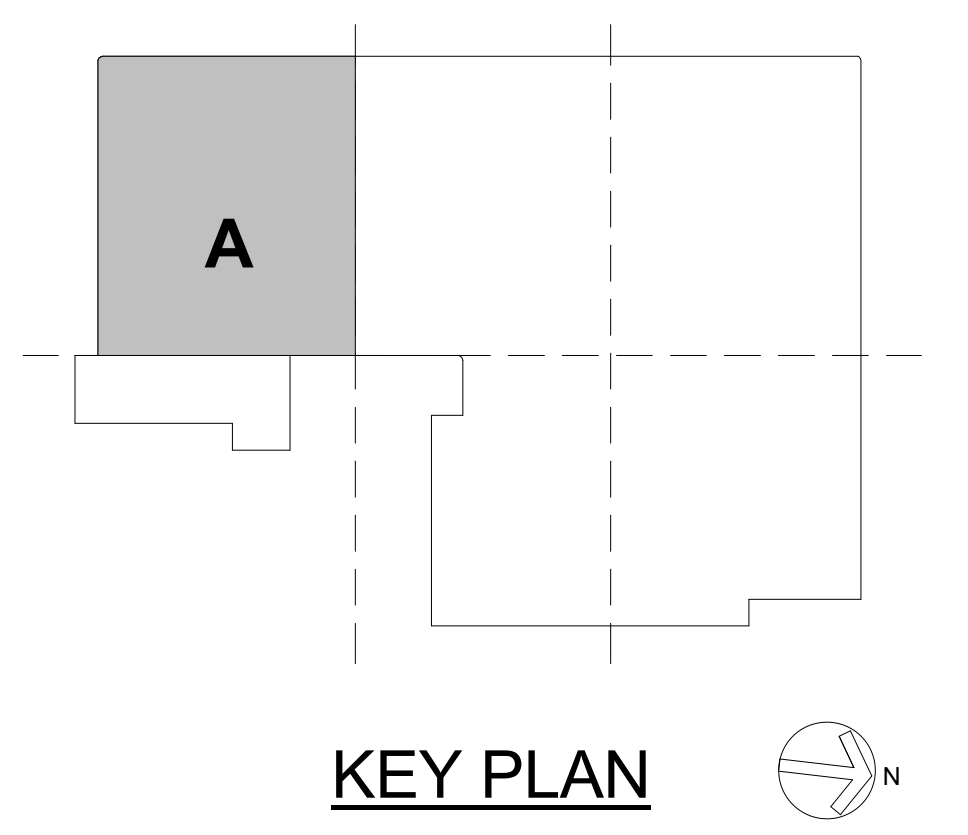





① 1/8" FIRST FLOOR AREA D - SANITARY
1/8" = 1'-0"

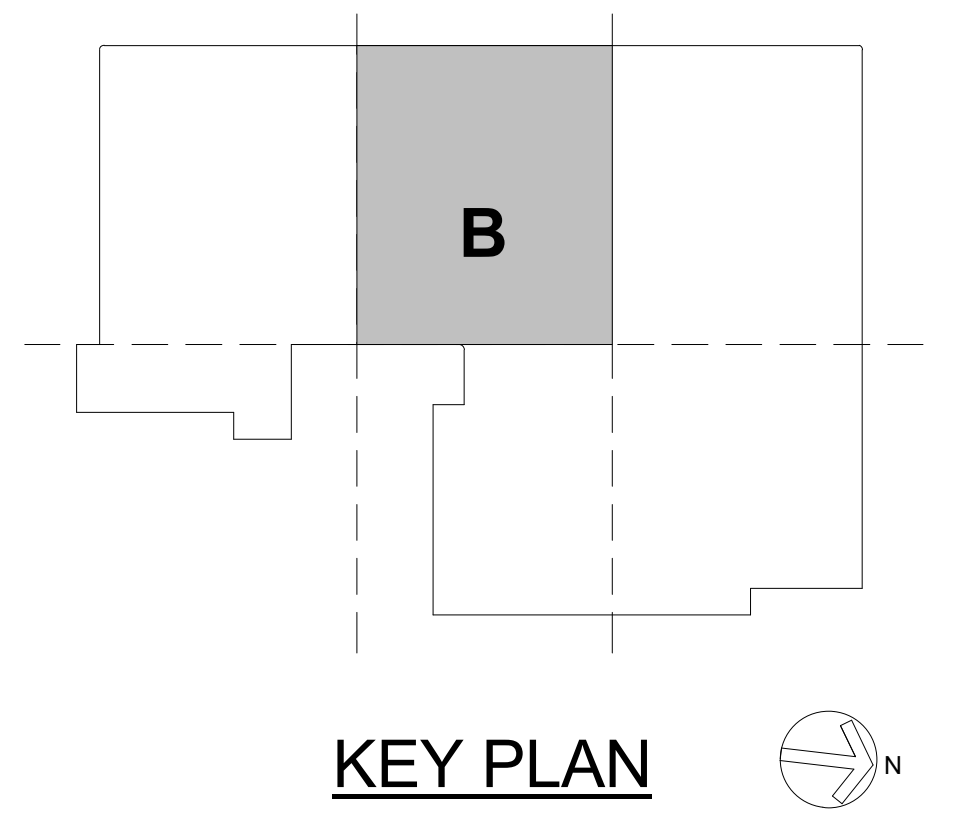
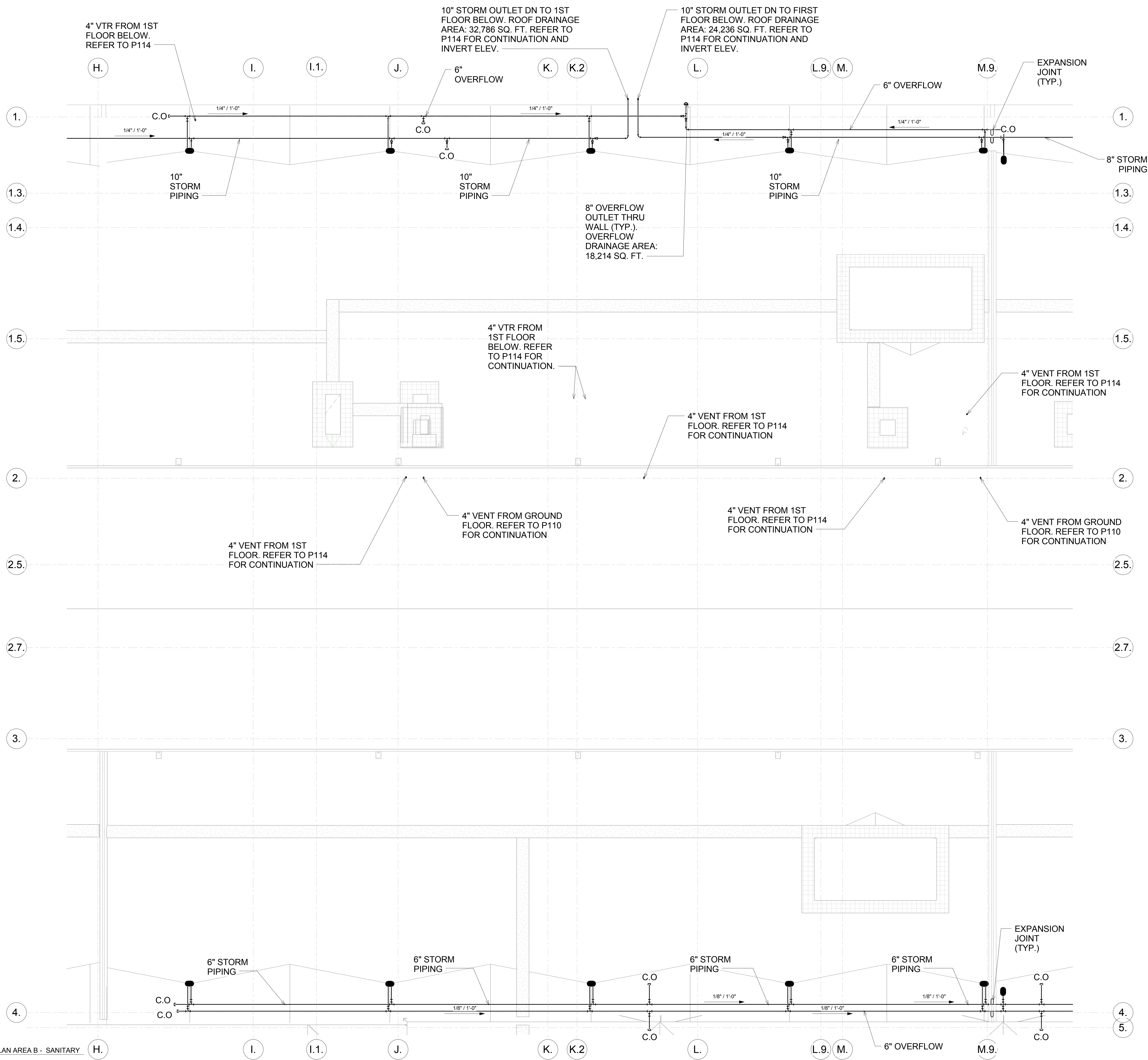
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REV. DATE DESCRIPTION SHEET NO.																																			
FILENAME:																																			



SHEET NO. **10.021**



				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: SPD CHECKED BY: ES SCALE: 1/8" = 1'-0"		<div><div><div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div></div><div><div>ARCHITECT: WENDEL APPROVED BY: JL</div><div>ENGINEERS: RUST, DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL DATE: 06/11/2014</div></div></div>		DESIGNED BY: AI ENGINEERS 919 MIDDLE STREET MIDDLETOWN CT 06457				PROJECT TITLE: WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT		ADDRESS: FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787		PROJECT NO: 0431-0006	
												DRAWING TITLE: ROOF DRAINAGE PLAN - AREA A		DRAWING NO: P-120					
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FILENAME:																			

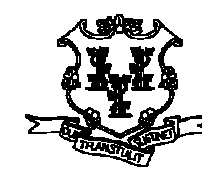


1 1/8" ROOF PLAN AREA B - SANITARY
1/8" = 1'-0"

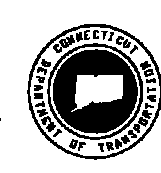
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DESIGNER/DRAFTER:	SPD
CHECKED BY:	ES
SCALE:	1/8" = 1'-0"



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



ARCHITECT: WENDEL	ENGINEERS: R&STL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
APPROVED BY: JL	DATE: 06/11/2014

DESIGNED BY:
AI ENGINEERS
919 MIDDLE STREET
MIDDLETOWN CT
06457



PROJECT TITLE:
**WATERBURY BUS
MAINTENANCE FACILITY
REPLACEMENT**

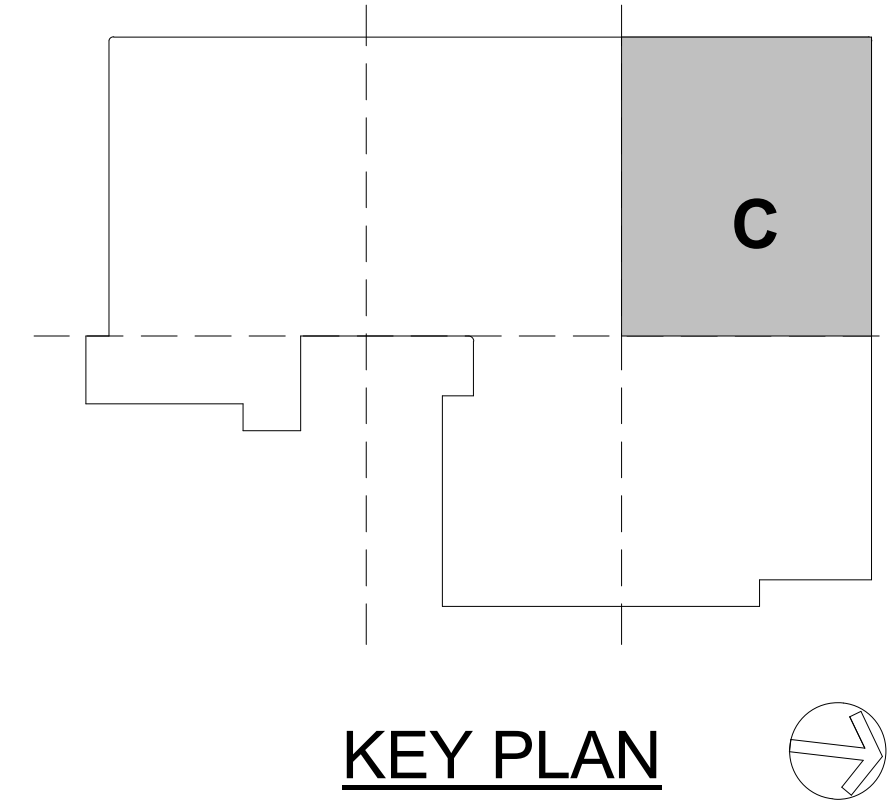
ADDRESS:
FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
ROOF DRAINAGE PLAN - AREA B

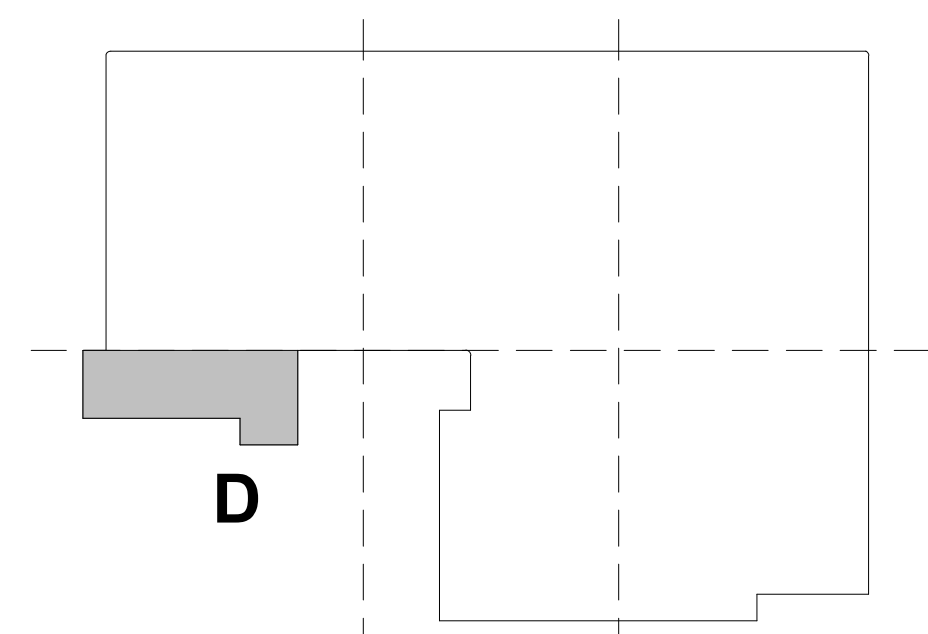
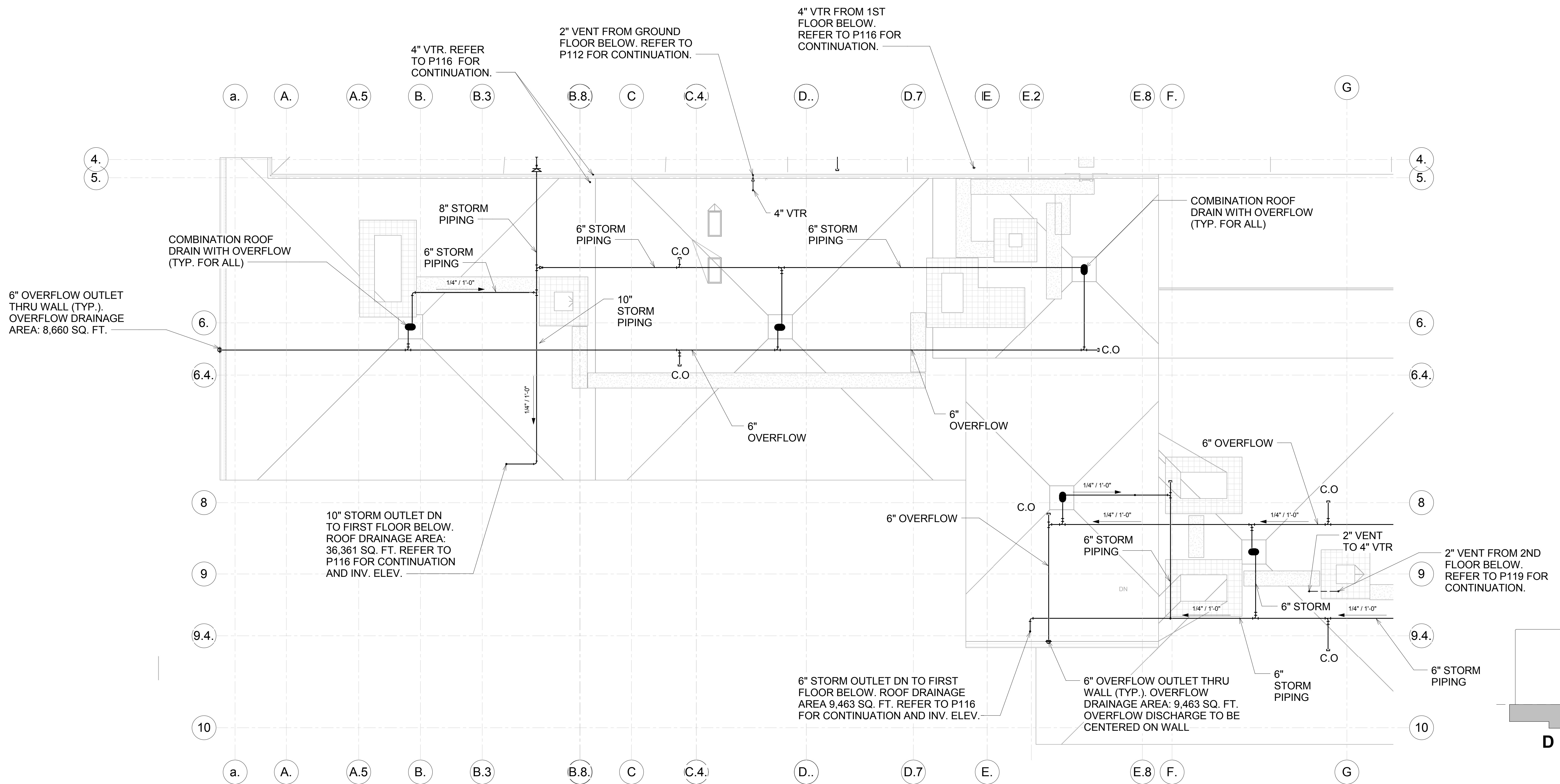
PROJECT NO.
0431-0006

DRAWING NO.
P-121

SHEET NO.
10.023



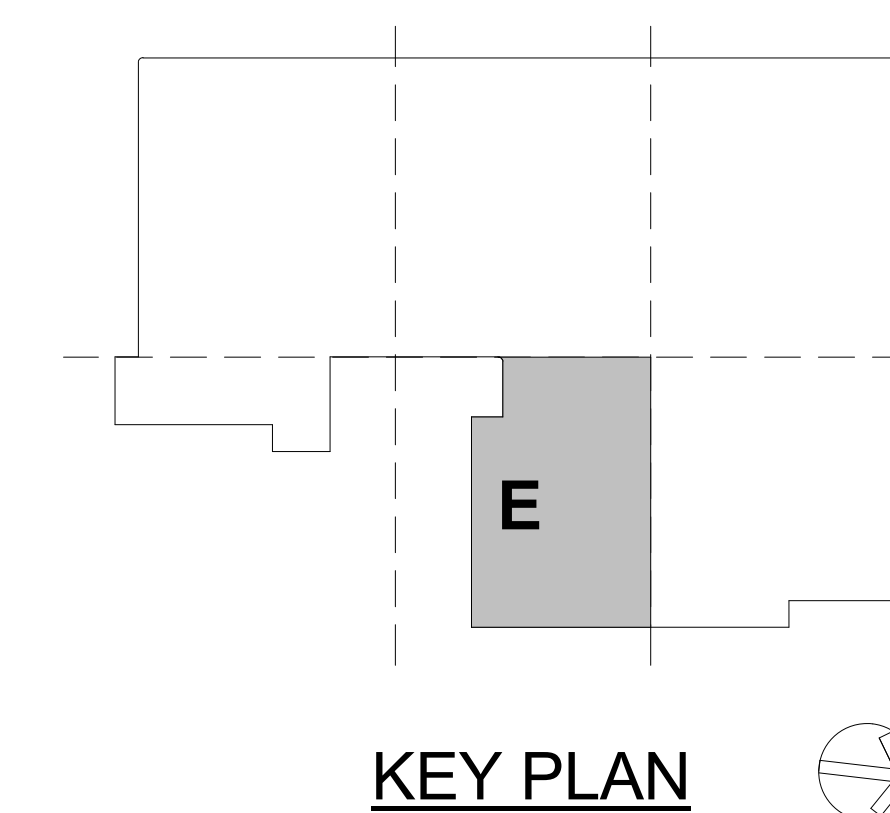
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SHEET NO.	10.024

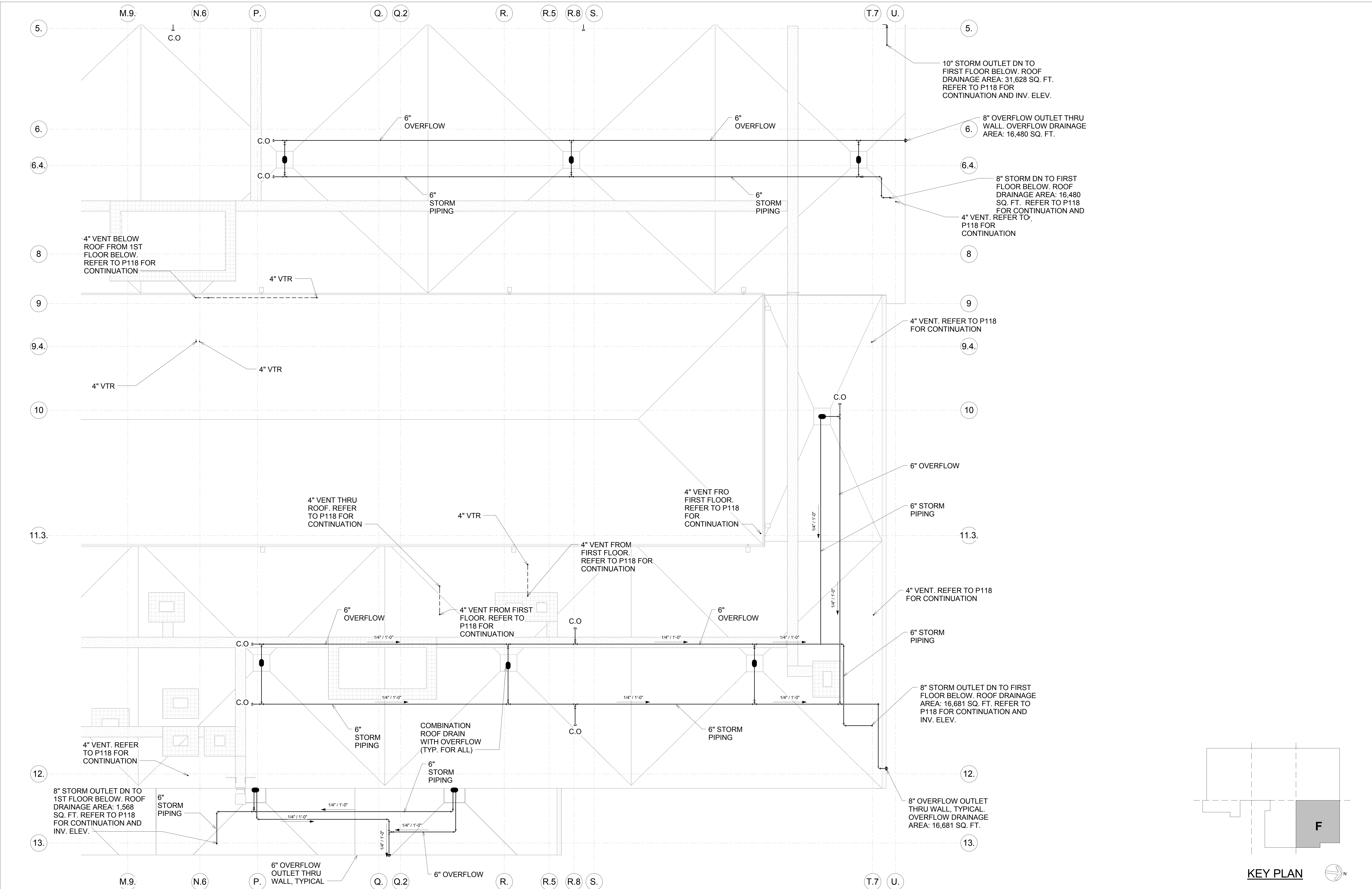


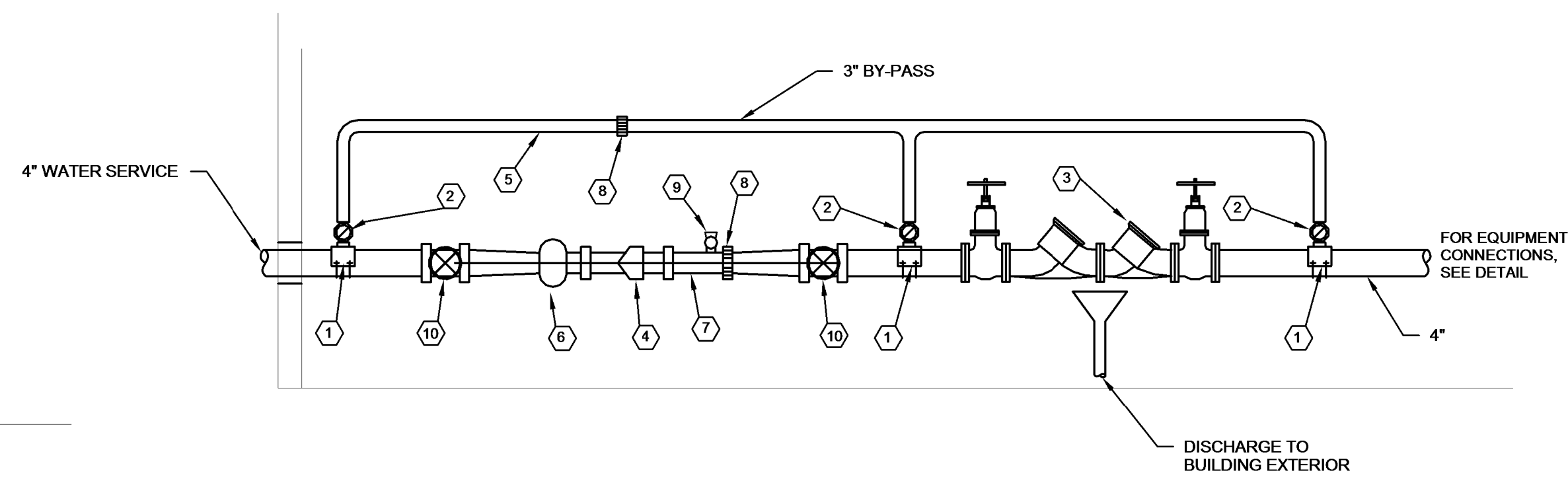
KEY PLAN

1 1/8" ROOF PLAN AREA D - SANITARY
1/8" = 1'-0"

				DESIGNER/DRAFTER: <div>SPD</div>		<div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div>	DESIGNED BY: AI ENGINEERS 919 MIDDLE STREET MIDDLETOWN CT 06457		<div>PROJECT TITLE: WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT</div>	ADDRESS: FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787		PROJECT NO: 0431-0006	
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REV. DATE DESCRIPTION SHEET NO.				SCALE: 1/8" = 1'-0"								SHEET NO. 10.025	
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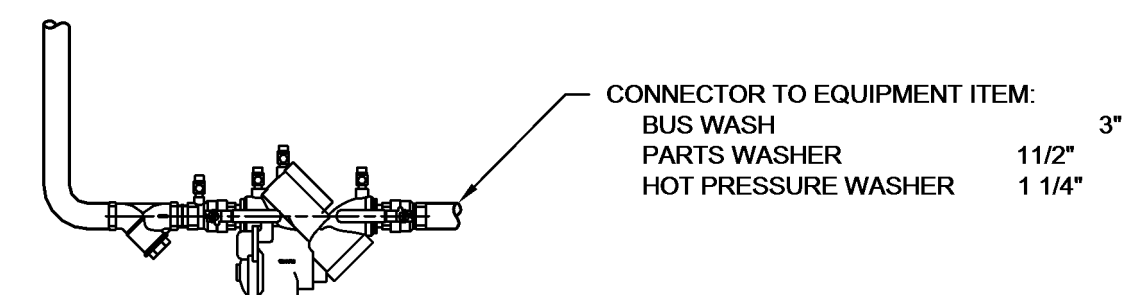


- GENERAL NOTES**
1. PROVIDE PIPE SIZE INCREASERS/REDUCERS AS REQUIRED.
 2. INSTALL INSECT SCREENS AT REGULATOR RELIEF VENTS ABOVE ROOF. TURN VENTS AWAY FROM NORMAL PREVAILING WIND DIRECTION.
 3. VERIFY ALL USAGE PRESSURES AND FLOWS AND SELECT REGULATORS ACCORDINGLY. VERIFY SERVICE LINE SIZE/DETAILS WITH GAS UTILITY COMPANY.
 4. PROPERLY IDENTIFY ALL EXPOSED GAS PIPING EVERY 5 FT. PER 2003 INTERNATIONAL FUEL GAS CODE.

- ### KEY NOTES
- 1) V-tactico Or Flanged x Flanged
Teel With Flanged X Flanged Valve For Sizes 3" Or Larger.
 - 2) R.W. Gate Valve With Non-Rising
Stem Handwheel Operator For 3" Or Larger.
 - 3) 4" Backflow Preventor
 - 4) 3" Compound Meter, See Note 3 Below.
 - 5) By-pass To Be Ductile Iron
 - 6) 3" Strainer, Supplied with Meter.
 - 7) Flanged Gate, (3 Pipe Dimensions In Length, Min.)
 - 8) Provide V-tactico Coupling Or Approved Equal For All Lines
Or Larger
 - 9) 2" Threaded Outlet And Ball Valve. Not Needed If Vertical
Teel Valve Is Provided On Main
 - 10) Resident Wedge Gate Valve, Flanged, With Hand Wheel,
Open Left, With Non-Rising Stem.

- ### GENERAL NOTES
1. Use Of Remote Reading Device As Required By Utility.
 2. An Approved Backflow Prevention Assembly Shall Be Required Downstream Of The Water Meter. Contact Water Resources, Backflow Prevention For Specific Information.
 3. Compound Meter: Combined Turbine And Disc Measuring Elements

WATER SERVICE ENTRANCE DETAIL
NTS



REDUCED PRESSURE ZONE BACKFLOW PREVENTER
NTS

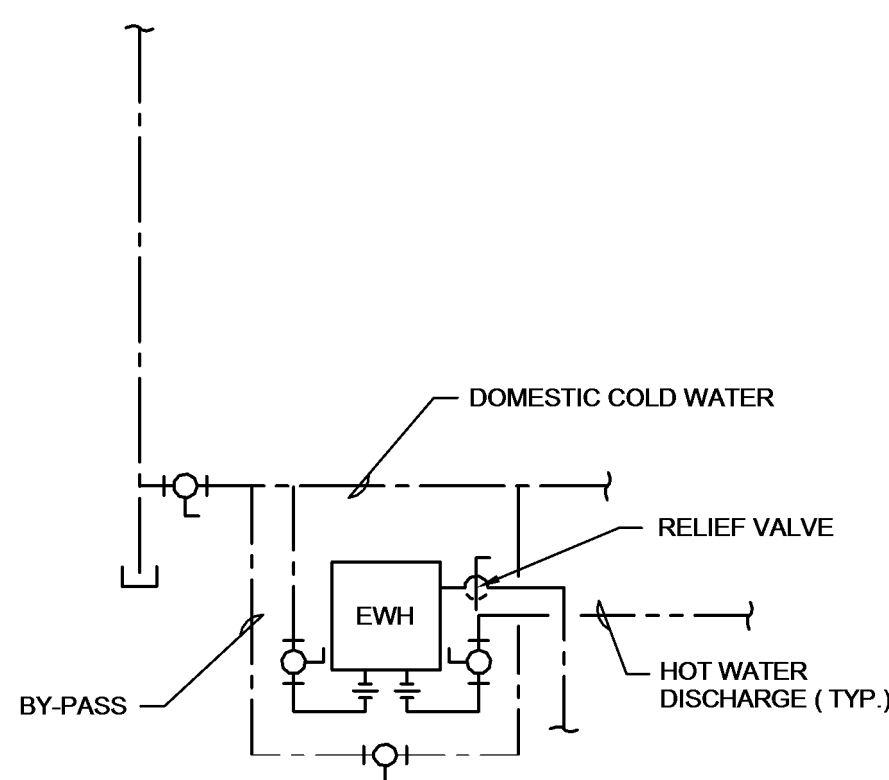
The diagram illustrates the components of a natural gas train in a linear flow sequence from left to right:

- FLOW:** Indicated by an arrow pointing right at the top left.
- DRIP LEG:** A vertical pipe section at the bottom left for liquid collection.
- GAS PRESSURE REGULATOR:** The first component after the drip leg, used to maintain a constant gas pressure.
- MAIN SHUT OFF VALVE:** A manual valve for shutting off the entire gas supply.
- LOW GAS PRESSURE SWITCH:** A safety device that shuts off the gas if the pressure drops below a safe level.
- 2ND GAS SAFETY VALVE:** Another safety valve for gas pressure monitoring.
- NORMALLY OPEN VENT VALVE:** A valve that allows for venting gas to the atmosphere under normal conditions.
- SAFETY GAS VALVE:** A primary safety valve designed to prevent gas leaks.
- MANUAL LEAK TEST VALVE:** A valve used to manually test for gas leaks in the system.
- GAS PRESSURE GAUGE:** A device for monitoring the gas pressure throughout the train.
- HIGH GAS PRESSURE SWITCH:** A safety device that shuts off the gas if the pressure rises above a safe level.
- BUTTERFLY VALVE:** A manual valve used for isolating the burner head for maintenance.
- BURNER HEAD:** The final component where the gas is burned for heating or cooking.

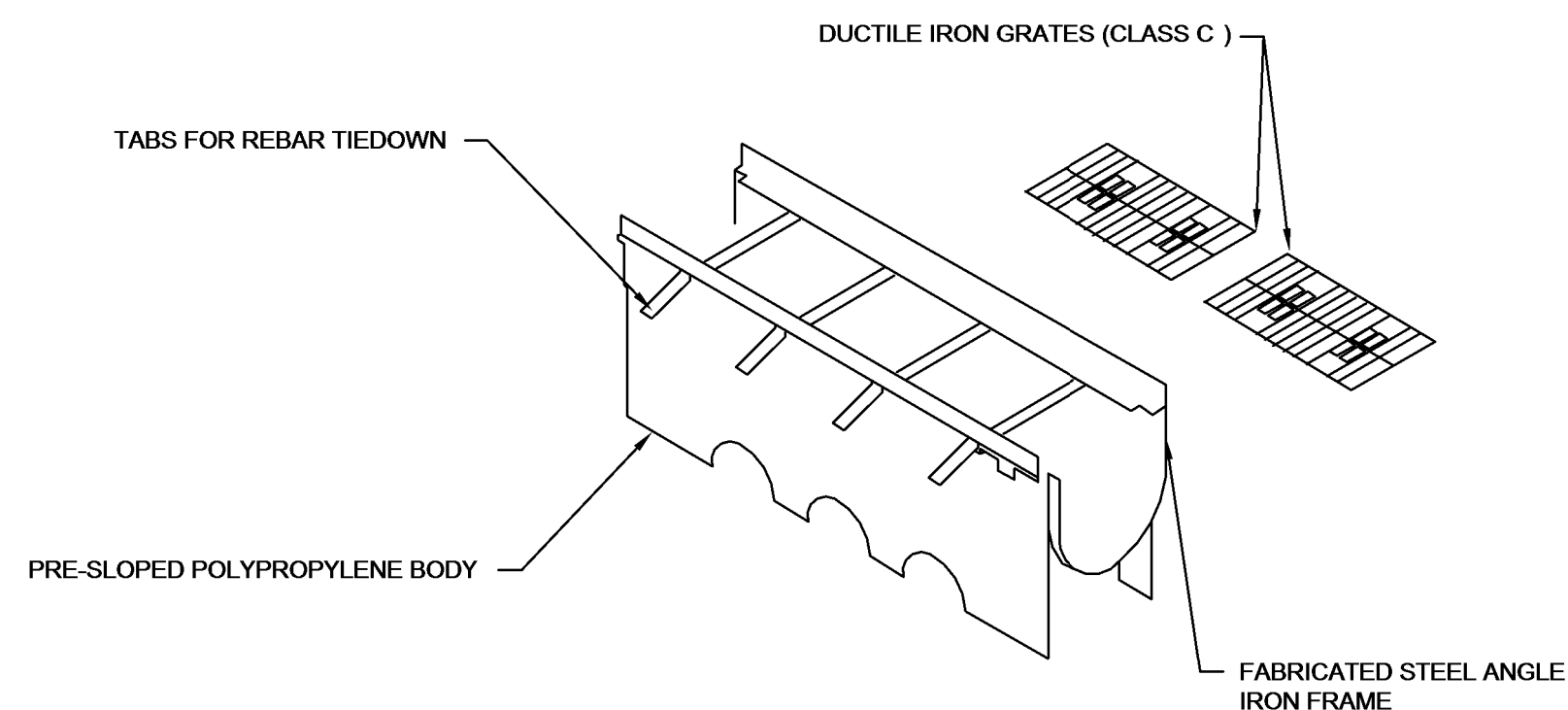
NATURAL GAS TRAIN

NTS

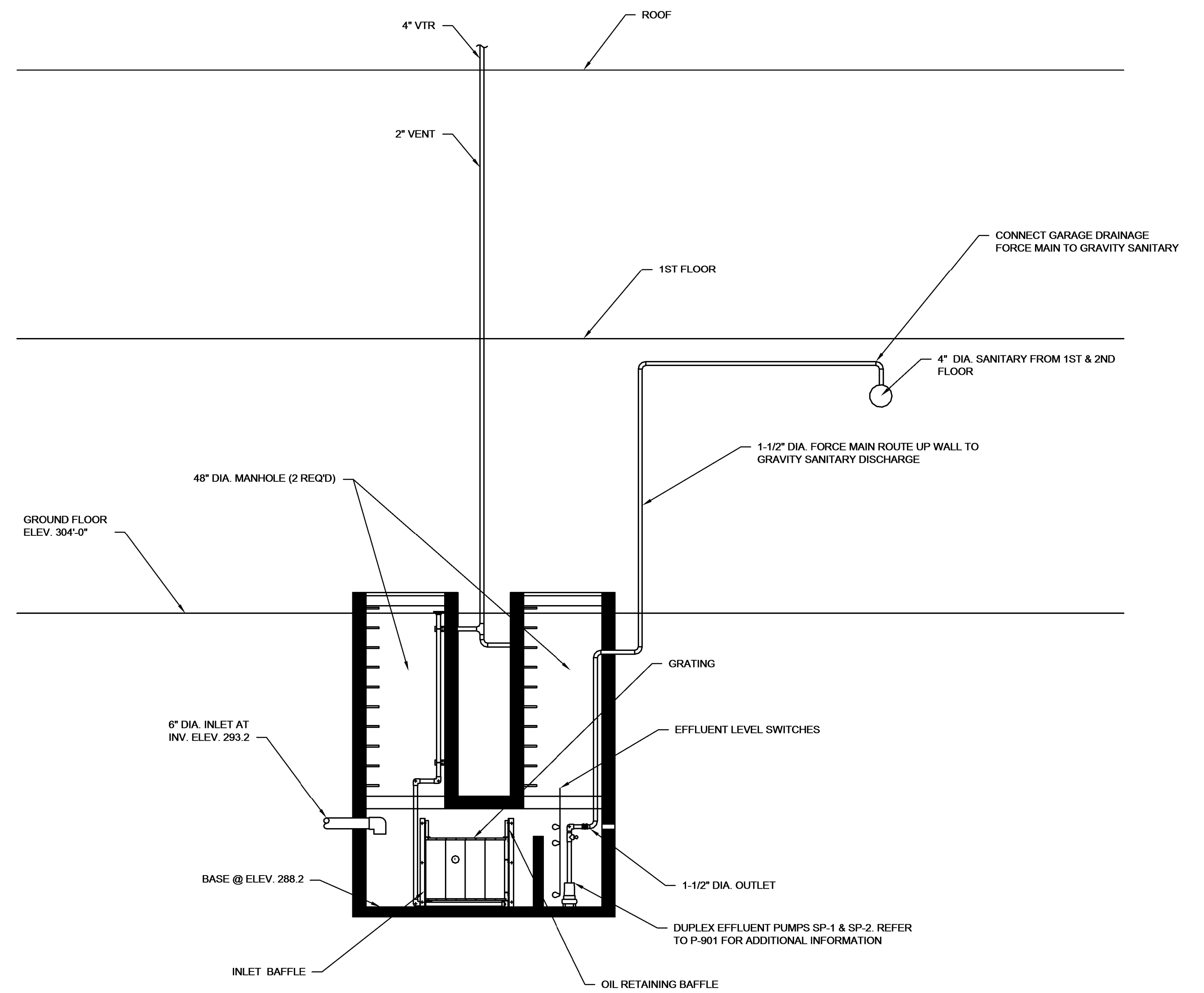
NATURAL GAS TRAIN
NTS



TYPICAL INSTANTANEOUS HOT WATER HEATER
NTS



TRENCH DRAIN DETAIL
NTS



OIL WATER SEPARATOR PUMP DIAGRAM

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1/4" = 1'-0"

1/4" = 1'-0"



JL

DATE _____

**WATERBURY BUS
MAINTENANCE FACILITY
REPLACEMENT**

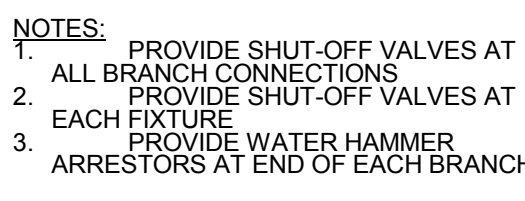
FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787

PLUMBING DETAILS

0431-0006

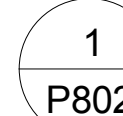
P-801

10.028



1
P802


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P802

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JL

ENGINEERS: ReSTL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS WENDEL
DATE: 06/11/2014

WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

PLUMBING DETAILS

10.030

